United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 3, 1999 Decided June 30, 2000

As Amended Nov. 14, 2000

No. 97-1715

Transmission Access Policy Study Group, et al.
Petitioner

v.

Federal Energy Regulatory Commission, Respondent

Vermont Department of Public Service, et al., Intervenors

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Consolidated with

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On Petitions for Review of Orders of the Federal Energy Regulatory Commission

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Before: Sentelle, Randolph and Tatel, Circuit Judges.

Opinion for the Court filed Per Curiam1:

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¹ Following our normal practice in complex cases, we shared the writing of this opinion. Judge Sentelle wrote Section II, Section III, and Section VII. Judge Randolph wrote Section IV, Section VI, and Section VIII. Judge Tatel wrote Section I, Section V, and Section IX.

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Following two notices of proposed rulemaking, the Federal Energy Regulatory Commission issued Orders 888 and 889 on April 24, 1996.2 Reflecting the Commission's effort to end

discriminatory and anticompetitive practices in the national electricity market and to ensure that electricity customers pay the lowest prices possible, these orders represent, as the Commission described in a later order not before us, "the foundation necessary to develop competitive bulk power markets...." Regional Transmission Organizations, Order No. 2000, 65 Fed. Reg. 810, 812 (2000).

Open access is the essence of Orders 888 and 889. Under these orders, utilities must now provide access to their transmission lines to anyone purchasing or selling electricity in the interstate market on the same terms and conditions as they use their own lines. By requiring utilities to transmit competitors' electricity, open access transmission is expected to increase competition from alternative power suppliers, giving consumers the benefit of a competitive market. Most fundamentally, FERC's open access policies, combined with parallel action now occurring on the state level, are intended to create a market in which customers may purchase power from any of a number of suppliers. A municipality or factory in Florida, for example, will no longer have to purchase power from its local utility but instead may seek cheaper power anywhere in the country. A customer in Vermont may purchase electricity from an environmentally friendly power producer in California or a cogeneration facility in Oklahoma.

All key players in the electricity market have challenged

² Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, FERC Stats. & Regs. p 31,036, 61 Fed. Reg. 21,540 (1996), clarified, 76 FERC p 61,009 and 76 FERC p 61,347 (1996) ("Order 888"), on reh'g, Order No. 888-A, FERC Stats. and Regs. p 31,048, 62 Fed. Reg. 12,274, clarified, 79 FERC p 61,182 (1997), on reh'g, Order No. 888-B, 81 FERC p 61,248, 62 Fed. Reg. 64,688 (1997), on reh'g, Order No. 888-C, 82 FERC p 61,046 (1998);

various provisions of Orders 888 and 889. Their claims range from the hypertechnical to arguments that FERC lacks authority to order open access transmission at all. Finding few defects in the orders, we uphold them in nearly all respects.

I. Introduction

Historically, vertically integrated utilities owned generation, transmission, and distribution facilities. They sold gen-

Open Access Same-Time Information System and Standards of Conduct, Order No. 889, FERC Stats. & Regs. p 31,035, 61 Fed. Reg. 21,737 (1996) ("Order 889"), on reh'g, Order No. 889-A, FERC Stats. & Regs. p 31,049, 62 Fed. Reg. 12,484 (1997), on reh'g, Order No. 889-B, 81 FERC p 61,253 (1997).

eration, transmission, and distribution services as part of a "bundled" package. Due to technological limitations on the distance over which electricity could be transmitted, each utility served only customers in a limited geographic area. And because of their natural monopoly characteristics, utilities have been heavily regulated at both the federal and state levels.

Since enactment of the Federal Power Act in 1935, the electricity industry has undergone significant change, both economically and technologically. Economies of scale have justified the construction of large (greater than 500 MW) generation facilities, such as nuclear power plants. Technological advances in the 1970s and 1980s have permitted small plants to operate efficiently as well. See Notice of Proposed Rulemaking, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, FERC Stats. & Regs. p 32,514 at 33,059-60, 60 Fed. Reg. 17,662 (1995) ("Open Access NOPR"). Technological improvements also made feasible the transmission of electric power over long distances at high voltages. See id. p 32,514 at 33,060. Alternative power suppliers, such as cogenerators, small power producers, and independent power producers emerged in response to these developments. Constructing and operating generation capacity at prices lower than the embedded generation costs of traditional utilities, these alternative suppliers have created a wholesale market for low-cost power.

The growth of this new wholesale market faced a serious obstacle. "As entry into wholesale power generation markets increased," FERC explained, "the ability of customers to gain access to the transmission services necessary to reach competing suppliers became increasingly important." Id. at 33,062. Yet the owners of transmission lines, the traditional utilities that had built the high-cost generation capacity, denied alternative producers access to their transmission lines on competitive terms and conditions. FERC therefore began requiring utilities to file open access transmission tariffs that permitted other suppliers to transmit power over

their lines under certain circumstances, such as when a utility sought authorization to merge with another utility or to sell power at market-based rather than cost-based rates.

Then, in 1992, Congress enacted the Energy Policy Act, which amended sections 211 and 212 of the FPA to authorize FERC to order utilities to "wheel" power--i.e., transmit power for wholesale sellers of power over the utilities' transmission lines--on a case-by-case basis. Pub. L. No. 102-486, 106 Stat. 2776, 2915-16 (1992) (codified at 16 U.S.C. ss 824j-k). FERC "aggressively implemented" amended sections 211 and 212 to "'facilitate the development of competitively priced generation supply options, and to ensure that wholesale purchasers of electric energy can reach alternative power suppliers and vice versa.' " Open Access NOPR, p 32,514 at 33,064 (quoting Notice of Proposed Rulemaking, Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, FERC Stats. & Regs. p 32,507 at 32,866, 59 Fed. Reg. 35,274 (1994) ("Stranded Cost NOPR")).

Despite these efforts, a persistent barrier to the development of a competitive wholesale power sale market remained. The Commission found that "utilities owning or controlling transmission facilities possess substantial market power; that, as profit maximizing firms, they have and will continue to exercise that market power in order to maintain and increase market share, and will thus deny their wholesale customers access to competitively priced electric generation; and that these unduly discriminatory practices will deny consumers the substantial benefits of lower electricity prices." Open Access NOPR, p 32,514 at 33,052. Power generators not permitted to use utilities' transmission lines on reasonable terms have no way to transmit their power to customers.

Invoking its authority under sections 205 and 206 of the FPA to remedy unduly discriminatory or preferential rules, regulations, practices, or contracts affecting public utility rates for transmission in interstate commerce, 16 U.S.C. ss 824d-e, and building on its experience in restructuring the natural gas industry, see Associated Gas Distribs. v. FERC, 824 F.2d 981 (D.C. Cir. 1987), the Commission issued Orders

888 and 889 to "prevent this discrimination by requiring all public utilities owning and/or controlling transmission facilities to offer non-discriminatory open access transmission service." Open Access NOPR, p 32,514 at 33,052. Orders 888 and 889 mandate what FERC terms "functional unbundling, " i.e., separating utilities' wholesale transmission functions from their wholesale electricity merchant functions. Specifically, the orders require utilities to (1) file open access nondiscriminatory tariffs that contain the minimum terms and conditions of nondiscriminatory services prescribed by FERC through its pro forma tariff; (2) take transmission service for their own new wholesale sales and purchases of electric energy under the same terms and conditions as they offer that service to others; (3) develop and maintain a same-time information system that will give potential and existing transmission users the same access to transmission information that the utility enjoys (called the "Open Access Same-Time Information System" or "OASIS"); and (4) state separate rates for wholesale generation, transmission, and ancillary services. See Order 888, p 31,036 at 31,635-36.

In requiring utilities to provide open access transmission, FERC acknowledged the dramatic change the orders would bring about, explaining that "[t]he most critical transition issue that arises as a result of the Commission's actions in this rulemaking is how to deal with the uneconomic sunk costs that utilities prudently incurred under an industry regime that rested on a regulatory framework and a set of expectations that are being fundamentally altered." Order 888-A, p 31,048 at 30,346. Known as "stranded costs," these "uneconomic sunk costs" are costs that utilities incurred not only with regulatory approval, but with the expectation of continuing to serve their current customers. These costs will become "stranded" when customers take advantage of open access transmission to purchase cheaper power from suppliers other than their historic utilities. Order 888 affords utilities an opportunity to recover stranded costs from their wholesale requirements customers, but only from those customers who use their utility's transmission service to purchase power from new suppliers, and only if the utility can

prove that it had a reasonable expectation of continued service to that customer.

After three rehearing orders, the Commission denied any further rehearing. All petitions for review of Orders 888 and 889 were consolidated and transferred to this circuit. We consider these petitions in this opinion. Section II considers challenges to FERC's authority to require utilities to file open access tariffs as a remedy for undue discrimination. Section III evaluates FERC's conclusion that it lacked jurisdiction to order retail unbundling yet has jurisdiction over transmission where state commissions have unbundled retail sales. Section IV addresses FERC's authority to require nonpublic utilities to provide reciprocal open access transmission service. Section V considers challenges to Order 888's stranded cost recovery provisions. Section VI evaluates petitioners' arguments relating to credits for customer-owned facilities and behind-the-meter generation. Section VII addresses discounting, interface allocation, and liability. Section VIII evaluates other arguments relating to the terms and conditions of the pro forma tariff. Section IX assesses FERC's compliance with the National Environmental Policy Act and the Regulatory Flexibility Act.

In the end, we affirm the orders in all respects except two: we remand for FERC to explain its treatment of energy costs in the stranded cost market option (Section V.A.5.c) and to provide a reasonable cap on contract extensions under existing customers' right-of-first-refusal (Section VIII.E).

II. FERC's Authority to Require Open Access

Although FERC asserts that "mounting claims of undue discrimination in transmission access" prompted its movement toward open access, the open access requirement of Order 888 is premised not on individualized findings of discrimination by specific transmission providers, but on FERC's identification of a fundamental systemic problem in the industry. Generally, those entities that own or control interstate transmission facilities are vertically-integrated public utilities that also generate and sell electricity. In its 1995

notice of proposed rulemaking, FERC observed that there were at that time approximately 328 public utilities, marketers, and wholesale generation entities with transmission needs, and that approximately 137 of those owned or controlled the transmission facilities. See Open Access NOPR, p 32,514 at 33,051. Entry into the transmission market is difficult and restricted, so those utilities that already own transmission facilities enjoy a natural monopoly over that field. The transmission-owning utilities can use their position to favor their own generated electricity and to exclude competitors from the market, whether by denying transmission access outright, or by providing transmission services to competitors only at comparatively unfavorable rates, terms, and conditions. Utilities that own or control transmission facilities naturally wish to maximize profit. The transmission-owning utilities thus can be expected to act in their own interest to maintain their monopoly and to use that position to retain or expand the market share for their own generated electricity, even if they do so at the expense of lower-cost generation companies and consumers.

Even before Order 888, some transmission-owning utilities voluntarily opened their transmission facilities to third party suppliers and purchasers of electricity; and FPA s 211 explicitly gives FERC the authority to order involuntary wheeling on a case-by-case basis. The Commission decided, however, that relying upon voluntary arrangements and s 211 orders would not remedy the fundamentally anti-competitive structure of the transmission industry. Instead, the Commission concluded, such a piecemeal approach would result in an inefficient "patchwork" of transmission systems nationwide. "The ultimate loser in such a regime is the consumer." Open Access NOPR, p 32,514 at 33,071.

As an alternative, the Commission interpreted the antidiscrimination language of FPA ss 205 and 206, 16 U.S.C. ss 824d, 824e (1994), as giving it the authority to impose open access as a generic remedy for its findings of systemic anticompetitive behavior. Invoking that broad authority, in Order 888, FERC requires every transmission-owning public utility within FERC's jurisdiction to file an Open Access

Transmission Tariff (OATT) containing minimum terms and conditions for non-discriminatory service and to take transmission service for their own wholesale sales and purchases of electric energy under those filed OATTs. In other words, this order requires the public utilities to provide the same transmission services to anyone purchasing or selling wholesale power--other public utilities, federal power suppliers and marketers, municipalities, cooperatives, independent power producers, qualifying facilities, or power marketers--as they provide to themselves. The Board of Water, Light and Sinking Fund Commissioners of the City of Dalton (Dalton) operates a municipally-owned utility system which provides electric power to residential, commercial, and industrial consumers in the city of Dalton, Georgia. Dalton obtains transmission services from the Georgia Integrated Transmission System (ITS), which it owns along with public utility Georgia Power Company (GPC) and two other utilities that are not subject to FERC's jurisdiction, and which GPC operates according to the terms of various filed agreements. Puget Sound Energy, Inc. (Puget) is a public utility in the Pacific Northwest, where Bonneville Power Administration, which is not a public utility subject to Order 888's requirements, 3

³ Bonneville Power Administration (BPA) "is a power marketing agency in the Pacific Northwest that markets power from thirty federal hydroelectric projects constructed and operated by the Corps of Engineers and the Bureau of Reclamation." In re Bonneville Power Administration, Power Sale and Transmission Rates, 54 F.E.R.C. p 62,143 (1991). In Order 888, FERC concluded that BPA is not a public utility as defined by Federal Power Act (FPA) s 201(e), and thus is not subject to Order 888's requirements. Order 888, p 31,036 at 31,858. FERC admitted, however, to three circumstances under which it might review BPA's transmission access and pricing policies: (1) if BPA files an open access tariff for review and confirmation under the Northwest Power Act and asks FERC to find that the tariff meets FERC's open access policies; (2) to the extent that BPA "is a transmitting utility subject to a request for mandatory transmission services" under FPA s 211; and (3) to the extent that BPA receives open access transmission from a public utility and is thereby subject to the reciprocity provision in that public utility's pro-forma tariff. Id.

dominates the electricity transmission market. These two industry petitioners challenge the open access requirement of Order 888 on various statutory, constitutional, and other grounds.

Turning first to the FPA itself, Puget and Dalton argue that ss 205 and 206 do not give the Commission the authority to order open access as a generic remedy; and even if the FPA does give the agency such authority, FERC has failed to satisfy the statutory requirements for invoking it. Dalton also argues that Order 888 itself violates the FPA by discriminating against transmission facility owners who have invested in those assets. Shifting to constitutional concerns, Puget and Dalton, along with amicus curiae Pacific Legal Foundation, maintain that Order 888 violates the Takings Clause of the Fifth Amendment. Finally, Dalton argues that the open access requirements of the OATT interfere with the antitrust conditions of outstanding nuclear licenses, and thus are unlawful. While we consider each of these challenges separately,4 we hold that Order 888's open access requirement is authorized by and consistent with the FPA and the Takings Clause. We conclude also that Dalton has not yet suffered injury from the alleged conflict between open access and the nuclear license antitrust conditions, and that its complaint on that issue is therefore not yet ripe for judicial review.

A. Statutory Challenges: FPA ss 205 and 206

Section 205 of the FPA broadly precludes public utilities, in any transmission or sale subject to FERC's jurisdiction, from "mak[ing] or grant[ing] any undue preference or advantage to

⁴ The Commission and various intervenors on its behalf argue extensively against our jurisdiction over these issues on the grounds that the petitioners failed, in various ways, adequately to raise their concerns before the agency and to preserve the issues for judicial review. Upon careful review of the record, we can safely conclude without further elaboration that these jurisdictional arguments are without merit, that the Commission has had ample notice and opportunity to address all of the petitioners' various statutory, constitutional, and other challenges to Order 888's open access requirement, and that we have jurisdiction to consider these issues.

any person or subject[ing] any person to any undue prejudice or disadvantage...." 16 U.S.C. s 824d(b). Section 206 of the FPA further provides in relevant part that

[w]henever the Commission, after a hearing had upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order.

16 U.S.C. s 824e(a). The statutory issues before us are whether these provisions give FERC the authority to order involuntary wheeling as a generic remedy, and if they do, whether FERC satisfied the procedural and evidentiary requirements imposed by these provisions.

1. ss 205 and 206 and Otter Tail Power Company

The Commission did not write on a blank slate when it interpreted FPA ss 205 and 206 as giving it the authority to order involuntary wheeling as a generic remedy for systemic anti-competitive behavior. Puget and Dalton argue principally that the Supreme Court's decision in Otter Tail Power Co. v. United States, 410 U.S. 366 (1973), controls the disposition of this issue. Otter Tail was an antitrust case in which the Supreme Court addressed whether the district court could require Otter Tail Power Company to wheel power for its competitors as a remedy for monopolistic practices. Contrary to the company's arguments, the Supreme Court concluded that the district court's order did not impermissibly conflict with the authority of the Federal Power Commission, FERC's predecessor, because the agency did not have the power itself to order involuntary wheeling under Part II of the FPA, which includes ss 205 and 206. Puget and Dalton

cite various circuit court precedents, including one from this circuit, as construing Otter Tail to prevent the Commission from ordering involuntary wheeling as a generic remedy. See, e.g., Florida Power & Light Co. v. FERC, 660 F.2d 668 (5th Cir. Unit B Nov. 1981); New York State Electric & Gas Corp. v. FERC, 638 F.2d 388 (2d Cir. 1980); Richmond Power & Light v. FERC, 574 F.2d 610 (D.C. Cir. 1978). Finally, Puget and Dalton note that subsequent to Otter Tail, Congress enacted FPA s 211, 16 U.S.C. s 824j, giving FERC the authority to impose open access on a case-by-case basis to remedy a broad range of problems. The petitioners argue that, if FPA ss 205 and 206 authorize the Commission to impose open access, and if Otter Tail does not prohibit such action, then there was no reason for Congress to enact s 211.

In response, the Commission contends that we should not read Otter Tail as limiting its authority under FPA s 206 to remedy discriminatory behavior, since Otter Tail was an antitrust case and not an undue discrimination case. The Commission also maintains that the circuit court cases cited by the petitioners are not on point and do not prohibit a generic open access remedy. The Commission points instead to our decision in Associated Gas Distributors v. FERC, 824 F.2d 981, 998 (D.C. Cir. 1987) (AGD), in which we upheld a similar open access transportation requirement imposed by FERC on natural gas transmission, as the controlling precedent. Finally, FERC argues that Congress enacted FPA s 211 to broaden its already existing authority to order involuntary wheeling, as FPA ss 205 and 206 authorize such action only as a remedy for undue discrimination.

We agree with FERC that our decision in AGD controls the disposition of this issue. In AGD, we reviewed a FERC order imposing open access conditions on pipelines transporting natural gas. See 824 F.2d at 997-1001. Considering arguments quite similar to those made by the petitioners here, we concluded that Otter Tail does not constrain FERC from mandating open access where it finds circumstances of undue discrimination to exist. See id. at 998-99. Turning to relevant circuit precedent, we construed Richmond Power & Light as supporting only the proposition that a refusal to

provide transmission services to another utility was not per se unduly discriminatory and we noted that the court in Florida Power & Light expressly left open the question of whether FERC could impose open access conditions as a remedy for anti-competitive behavior. See id. at 999. Further, we pointed out that our reading of Richmond is consistent with other precedent, specifically Central Iowa Power Coop. v. FERC, 606 F.2d 1156 (D.C. Cir. 1979), in which we upheld FERC's use of its authority to prevent undue discrimination to condition its approval of a power-pooling agreement upon removal of membership criteria which denied certain privileges to some but not all participants. See AGD, 824 F.2d at 999. Indeed, in AGD, we noted that open access relies upon the very same principles that we upheld in Central Iowa. Although AGD addressed open access under the antidiscrimination provisions of the Natural Gas Act (NGA) rather than FPA ss 205 and 206, we have repeatedly recognized the similarity of the two statutes and held that they should be interpreted consistently. See Environmental Action v. FERC, 996 F.2d 401, 410 (D.C. Cir. 1993); Tennessee Gas Pipeline Co. v. FERC, 860 F.2d 446, 454 (D.C. Cir. 1988); also Arkansas La. Gas Co. v. Hall, 453 U.S. 571, 577 n.7 (1981). Thus, AGD counsels the conclusion that, while Otter Tail may represent a general rule that FERC's authority to order open access is limited, the FPA, like the NGA, makes an exception to that rule where FERC finds undue discrimination.

Moreover, as in AGD, the deferential standard of Chevron U.S.A. Inc. v. Natural Resources Defense Council, 467 U.S. 837 (1984), governs our review of FERC's interpretation of FPA ss 205 and 206. See AGD, 824 F.2d at 1001. If we agreed with Puget and Dalton that the Supreme Court's Otter Tail opinion dictates a particular construction of ss 205 and 206, then the Commission's contrary interpretation would not be entitled to Chevron deference. See Maislin Indus., U.S., Inc. v. Primary Steel, Inc., 497 U.S. 116, 131 (1990) ("Once we have determined a statute's clear meaning, we adhere to that determination under the doctrine of stare decisis, and we judge an agency's later interpretation of the statute against

our prior determination of the statute's meaning."). But having concluded that Otter Tail does not govern the disposition of this case, we are faced solely with considering the validity of FERC's interpretation of the FPA, a statute that the Commission administers. In AGD, we concluded that FERC reasonably interpreted the NGA's ambiguous antidiscrimination provisions as giving it broad authority to remedy unduly discriminatory behavior through a generic open access requirement. See AGD, 824 F.2d at 1001. Given the FPA's similar language, we can only reach the same conclusion with respect to Order 888. For all of these reasons, we find that the Commission has the authority under FPA ss 205 and 206 to require open access as a generic remedy to prevent undue discrimination.

2. s 206(a) Procedural and Evidentiary Requirements

Puget and Dalton next argue that, even if FPA ss 205 and 206 authorize FERC to impose open access generically, s 206(a) imposes certain procedural and evidentiary requirements for action which the Commission failed in two separate but related ways to satisfy. First, the petitioners claim that FPA s 206(a) requires substantial evidence of contemporaneous "unjust, unreasonable, unduly discriminatory or preferential" behavior before the Commission can act. The Commission made no finding of discrimination or monopoly control on the part of Georgia Power Company or Puget. None of the applications or complaints filed with the Commission accused these petitioners of unduly discriminatory or anti-competitive behavior. Instead, the Commission premised Order 888 on a generic finding that public utility holders as a group have sufficient monopoly power over the transmission of electricity to engage in unduly discriminatory and anti-competitive practices, and that this condition will worsen in the future. To support its finding, the Commission relied upon unsubstantiated allegations of discriminatory conduct in public comments, its own experience in reviewing applications and complaints, and its own understanding of the incentives for monopolists to behave discriminatorily.

Puget and Dalton additionally assert that FPA s 206(a) requires that the requisite findings of undue discrimination be made in the context of a hearing. Although they concede that a rulemaking proceeding can satisfy the statute's hearing requirement, Puget and Dalton maintain that the rulemaking proceeding nevertheless must clearly identify the challenged activities and actors, and give the accused actors the opportunity to demonstrate that their activities were not unlawful. The petitioners protest that the Commission's notice-and-comment rulemaking process did not afford them such opportunity.

FERC claims the discretion under NLRB v. Bell Aerospace Co., 416 U.S. 267, 293 (1974), to choose between rulemaking and case-by-case adjudication; and FERC contends that its generic rulemaking process fully satisfied the requirements of FPA s 206(a). FERC concedes that it relied upon general findings of systemic monopoly conditions and the resulting potential for anti-competitive behavior, rather than evidence of monopoly and undue discrimination on the part of individual utilities. Citing our opinion in Wisconsin Gas Co. v. FERC, 770 F.2d 1144, 1166 (D.C. Cir. 1985), however, FERC maintains that such findings are sufficient to substantiate its decision to impose the open access requirement. Finally, FERC observes that we rejected these same arguments in AGD. See 824 F.2d at 1008 (citing Wisconsin Gas, 770 F.2d at 1165-68).

Again, we must agree with the Commission. In American Public Gas Ass'n v. FPC, we held that the Commission could exercise its authority under NGA s 5(a), the provision parallel to FPA s 206, through rulemaking as well as adjudication. See 567 F.2d 1016, 1064-67 (D.C. Cir. 1977); see also Wisconsin Gas, 770 F.2d at 1153 (articulating the American Public Gas holding). Congress subsequently ratified the American Public Gas holding when it enacted the Department of Energy Organization Act, 42 U.S.C. s 7173(c) (1994). See Wisconsin Gas, 770 F.2d at 1153 n.8 (acknowledging the Act). That statute provides that "the establishment of rates and charges under the Federal Power Act [16 U.S.C. 791a et seq.] or the Natural Gas Act [15 U.S.C. 717 et seq.], may be conducted by

rulemaking procedures." 42 U.S.C. s 7173(c) (brackets in original). By passing a statute adopting the holding of American Public Gas, and explicitly applying that rule to the FPA as well as the NGA, Congress signaled its intent that the hearing requirements of NGA s 5(a) and FPA s 206(a) be interpreted similarly.

Interpreting the hearing requirement of NGA s 5(a), we have said that, while the Commission cannot rely solely on "unsupported or abstract allegations," the agency is also not required to make "specific findings," so long as the agency's factual determinations are reasonable. See Wisconsin Gas, 770 F.2d at 1158. In AGD, we applied Wisconsin Gas in holding that the Commission was not required to make specific findings that individual rates charged by individual pipelines were unlawful, or to offer empirical proof for all the propositions upon which its order depended, before promulgating a generic rule to eliminate undue discrimination. See AGD, 824 F.2d at 1008-09. Upon comparison of the order considered in AGD with Order 888, if anything, FERC more thoroughly documented the reasons for its actions in Order 888 than in the earlier natural gas order.

Puget claims that AGD and Wisconsin Gas are distinguishable, and that this case is governed by Electricity Consumers Resource Council v. FERC, 747 F.2d 1511 (D.C. Cir. 1984), in which we reversed FERC's adoption of a rate based on an economic theory in the absence of a discussion of the practical applications of that theory. See 747 F.2d at 1514. As the AGD court recognized, however, the court in Electricity Consumers was persuaded that the Commission had distorted the economic theory it claimed to apply. See AGD, 824 F.2d at 1008. Just as the pipelines in AGD did, Puget has failed to articulate exactly how FERC has distorted the theories on which it relies in Order 888. Additionally, the AGD court rejected the idea that "Electricity Consumer's reference to 'economic theory' was intended to invalidate agency reliance on generic factual predictions merely because they are typically studied in the field called economics." Id. Following the rationale of Wisconsin Gas and AGD, we conclude that

FERC has satisfied the requirements for invoking its authority under FPA s 206(a).

3. Discriminatory Effect of Order 888

Dalton charges that, even if the FPA permits FERC to impose involuntary wheeling generally, the open access requirement of Order 888 causes rather than remedies discrimination, and therefore violates FPA s 206(a)'s express requirement that FERC act against undue discrimination. Specifically, Dalton and the other non-jurisdictional owners of the Georgia ITS facilities invested millions of dollars in those facilities in order to use the facilities each owns and receive reciprocal open access transmission services from the other owners. Under the Open Access Transmission Tariff (OATT), other customers do not have to make such investments to use the Georgia ITS facilities. FERC responds that Order 888 does not unduly discriminate between old and new customers of integrated transmission systems like the Georgia ITS; and that if Dalton has evidence that the tariff results in undue discrimination in its individual circumstances, Dalton remains free to file a petition under FPA s 206 for redress, and FERC will consider its claim.

FERC's conclusion that its open access requirement is not unduly discriminatory is subject only to arbitrary and capricious review. See 5 U.S.C. s 706(2)(A) (1994); Sithe/ Independence Power Partners, LP v. FERC, 165 F.3d 944, 948 (D.C. Cir. 1999); Union Pacific Fuels, Inc. v. FERC, 129 F.3d 157, 161 (D.C. Cir. 1997). We conclude that FERC has adequately explained why its open access requirement is not unduly discriminatory. Relying upon extensive commentary as well as its own experiences, FERC concluded that, as a general matter, transmission industry conditions were conducive to discriminatory practices and anti-competitive behavior, such that case-by-case adjudication could not adequately address the problem. FERC also recognized that its generic findings may have exceptions, and thus that Order 888 may in individual circumstances have a different result than that intended. Therefore, Order 888 does not preclude facilities owners the opportunity to argue their particular circumstances in their OATT filings or, as with Dalton, in their own petitions for relief under FPA s 206(a). Rather, Order 888 merely shifts from a regulatory norm in which a user of transmission services must demonstrate to FERC an individualized need for open access to one in which a provider of transmission services must present to FERC individualized circumstances requiring relief from open access. As the petitioners have a mechanism by which they can seek relief for their particular concerns, we find nothing arbitrary or capricious about FERC's conclusion that its approach to open access is not unduly discriminatory.

In another stab at demonstrating the discriminatory effect of Order 888's open access requirement, Dalton alerts us to an agreement entered into between it and Georgia Power Company (GPC) in partial implementation of antitrust conditions contained in operating licenses issued by the Nuclear Regulatory Commission for jointly owned nuclear facilities connected to the Georgia ITS. Those antitrust conditions require GPC to provide Dalton with transmission services until the nuclear licenses expire, long after the ITS Agreement terminates. Dalton alleges that limitations imposed by Order 888 on Dalton's rights upon termination of the ITS Agreement are inconsistent with GPC's obligations under the nuclear licenses, and that the interference will result in discrimination against Dalton. FERC maintains that it agreed in addressing GPC's Order 888 compliance filing to treat the ITS Agreements separately.

Ultimately, Dalton has offered no present injury from the alleged conflict, so this issue is not ripe for review. Dalton will only be injured if, upon termination of the ITS Agreement, Order 888 interferes with Dalton's right to transmission services. Dalton's own argument suggests as much, observing that FERC "left to GPC the decision whether it 'must, but cannot, comply with separate orders' of NRC and FERC and whether it will present evidence of such conflict to either Commission," and complaining that even if GPC does act, "the orders under review provide no assurance that the competitive transmission and other service rights provided by the nuclear licenses will be respected under the OATT." Br.

of Petitioner Dalton at 23 (quoting Order 888-A, p 31,048 at 30,452). In short, GPC and FERC are still in the process of determining whether the antitrust provisions even conflict with Order 888, as well as how to deal with any such inconsistency.5 Accordingly, this issue is not appropriate for judicial review at this time.

B. Constitutional Challenge: Fifth Amendment Takings Clause

Puget and amicus curiae Pacific Legal Foundation (Pacific) contend that Order 888 violates the Takings Clause of the Fifth Amendment. These petitioners maintain that Order 888's open access requirement engineers a "taking" in two ways: First, that FERC's open access requirement effects a regulatory taking by arbitrarily changing pricing methodology in a way that excessively deprives transmission owners of their investments in facilities; and, second, that the open access requirement allows a physical invasion, a permanent physical occupation, by taking away the transmission owners' right to exclude competitors from their transmission property. We cannot grant relief on either ground.

When the action of the federal government effects a "taking" for Fifth Amendment purposes, there is no inherent constitutional defect, provided just compensation is available. At bottom, both of the petitioners' Fifth Amendment claims turn not on whether open access effects a taking, but whether FERC's cost-based transmission pricing policies in the end provide just compensation. The remedy of just compensation is not within our jurisdiction but that of the United States Court of Federal Claims, under the Tucker Act, 28 U.S.C. s 1491. See Bell Atlantic Tel. Cos. v. Federal Communications Comm'n, 24 F.3d 1441, 1444 n.1 (D.C. Cir. 1994); Railway Labor Executives' Ass'n v. United States, 987 F.2d 806, 815-16 (D.C. Cir. 1993).

We recognize that our jurisdiction to review an agency's construction of a statute necessarily involves an exercise of

⁵ GPC's management of the Georgia ITS is subject to the direction of a committee that includes Dalton representatives.

the policy of avoiding constitutional issues where possible, even though the issues may concern arguable takings amenable to Tucker Act remedy, "when 'there is an identifiable class of cases in which application of a statute will necessarily constitute a taking.' "Bell Atlantic, 24 F.3d at 1445 (D.C. Cir. 1994) (quoting United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 128 n.5 (1985)). We need not decide whether this case falls within that category, however, because even if it did, any takings problem created by Order 888 does not raise such significant constitutional doubt as to require us to construe the FPA to prohibit FERC from ordering open access. If there is a taking, and a claim for just compensation, then that is a Tucker Act matter to be pursued in the Court of Federal Claims, and not before us.

III. Federal versus State Jurisdiction over Transmission Services

Vertically integrated utilities use their own facilities to generate, transmit, and distribute electricity to their customers. Traditionally, the customer paid one combined rate for both the power and its delivery, thus the industry refers to such sales as "bundled." To the extent that bundled sales are made directly to the end user of the electricity, they are also recognized as retail sales. Utilities may also sell the electricity they generate at wholesale to other utilities or other resellers of power, which then resell that power to their own customers. Thus, the same utility may use its facilities to serve both retail and wholesale customers. Vertically integrated utilities use their transmission facilities to move electricity over long distances, and use local distribution lines to deliver the electricity to the end user.

Even before Congress enacted the FPA, the Supreme Court held that states could not regulate wholesale sales of electricity. See Public Utils. Comm'n of R.I. v. Attleboro Steam & Elec. Co., 273 U.S. 83 (1927). A few years later in 1935, Congress included in the FPA a provision giving the Federal Power Commission, FERC's predecessor agency, the authority to regulate "the sale of [electric] energy at whole-

sale," as well as "the transmission of electric energy in interstate commerce." FPA s 201(a), 16 U.S.C. s 824(a) (1994). Congress also limited federal regulation "to those matters which are not subject to regulation by the States," id., and reserved to the states "jurisdiction ... over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce...." FPA s 201(b), 16 U.S.C. s 824(b). Pursuant to these provisions, FERC has regulated wholesale power sales and interstate transmissions, and state agencies have retained jurisdiction over bundled retail transactions, including service issues and the intrastate sale and distribution of electricity through local distribution facilities.

Initially, as most transactions involved either a wholesale or a retail sale, and correspondingly transmission or local distribution facilities, this regulatory division of labor was straightforward in application. Indeed, in 1935, when Congress enacted the FPA, the networks of high-voltage, long-distance transmission lines which today crisscross the United States did not exist. Instead, vertically integrated utilities individually built facilities sufficient to meet the power needs of their customers. Over time, however, the landscape of the electric industry changed.

Utilities decided to cover demand spikes by sharing power, rather than by building more generation capacity. The transmission grid developed from these arrangements. Eventually, nonutility generators started producing electricity; and power marketers began to buy and resell electricity to other power marketers, utilities, or even directly to consumers. These industry participants do not own transmission lines, so they rely upon the utilities that own such facilities to provide transmission services. In addition to their traditional bundled sales activity, vertically integrated utilities started "unbundling" their own services and developing their own power marketing units to buy and sell electricity at wholesale. Some states even mandate unbundling of retail services. As a result of these changes, facilities once used solely for local distribution of bundled retail sales now engage regularly in

unbundled wholesale transmissions and retail delivery as well. Thus, while the electricity world once neatly divided into spheres of retail versus wholesale sales, and local distribution versus transmission facilities, such is no longer the case.

In Order 888, FERC reinterpreted FPA s 201 to accommodate the new industry practices and conditions. FERC left the regulation of bundled retail transmissions to the states, concluding that "when transmission is sold at retail as part and parcel of the delivered product called electric energy, the transaction is a sale of electric energy at retail." Order 888, p 31,036 at 31,781. Nevertheless, FERC asserted jurisdiction over all unbundled retail transmissions, and left to the states only the sales portion of unbundled retail transactions, on the ground that FPA s 201 gives it jurisdiction without qualification over all transmission by public utilities in interstate commerce. See id. Also, while acknowledging that FPA s 201(b) explicitly places retail transmissions by "facilities used in local distribution" beyond the Commission's jurisdiction, FERC adopted a seven factor jurisdictional test for determining which facilities fall within that category, and claimed exclusive authority over those that do not. See id. at 31,780, 31,784. In the present litigation, each of these changes is challenged, with some petitioners claiming that FERC went too far, and others contending that the Commission did not go far enough in asserting jurisdiction.

A. Bundled Retail Sales

Several state regulatory commissions complain that FERC exceeded the boundaries of its statutory authority by asserting jurisdiction over unbundled retail transmissions. These state petitioners argue that the plain meaning and history of FPA s 201(a) gives FERC the authority to regulate only transmissions of electricity consumed in a state other than that in which the electricity was generated, if the transmission was not otherwise subject to state regulation. The states historically have regulated retail transmissions as part of bundled retail sales of electricity, while FERC has regulated wholesale transmissions; and the division of regulatory jurisdiction should not change merely because those transac-

tions have now been unbundled into separate generation, transmission, and sales components.

Two groups of transmission dependent utilities, TAPS and TDU Systems, and the nation's largest power wholesaler, Enron Power Marketing (collectively the "unbundling and discounting" or "U&D" petitioners), both intervene on the side of FERC with respect to the states' claim, and separately challenge FERC's interpretation of its jurisdiction on different grounds. The U&D petitioners contend that FERC impermissibly limited its jurisdiction by leaving the regulation of bundled retail transmissions to the states. These parties maintain that FERC has the authority to regulate both bundled and unbundled retail transmissions, and that FERC violates FPA s 206 by limiting the scope of Order 888 to the latter. To establish that bulk transmission by utilities is transmission in interstate commerce regardless of whether the power is sold at wholesale or retail, the U&D petitioners cite particularly FPC v. Florida Power & Light Co., 404 U.S. 453 (1972), and Jersey Central Power & Light Co. v. FPC, 319 U.S. 61 (1943), two of the cases relied upon by FERC in the Notice of Proposed Rulemaking, p 32,514 at 33,135-42. As further support that FERC's jurisdiction extends to all interstate transmissions, the U&D petitioners offer NGA precedent recognizing FERC's authority over all interstate gas transportation, if not the gas being transported. See, e.g., FPC v. Louisiana Power & Light Co., 406 U.S. 621, 636 (1972); United Distribution Cos. v. FERC, 88 F.3d 1105, 1153 (D.C. Cir. 1996) (UDC); Mississippi River Transmission Corp. v. FERC, 969 F.2d 1215 (D.C. Cir. 1992). These petitioners contend that excluding bundled retail transmissions from the OATT will permit discrimination and give owners a competitive advantage, contrary to the mandate of FPA s 206(a) that FERC eliminate undue discrimination. Accordingly, the U&D petitioners claim that FERC erred when it declined to mandate functional unbundling for an owner's transmissions to bundled retail customers of (1) its own generated power or (2) power purchased at wholesale.

In response to these challenges, FERC maintains that the plain meaning of FPA s 201 gives the Commission jurisdic-

tion over all interstate transmissions without qualification, while at the same time limiting jurisdiction over sales to wholesale sales. Relying particularly on Florida Power & Light and Jersey Central Power & Light, FERC asserts broad jurisdiction over all transmission activities in interstate commerce. As for bundled retail sales, FERC's position is that once the transmission service is bundled with generation and local distribution, it becomes merely a component of the retail sale itself, over which FERC has no jurisdiction. FERC maintains that natural gas jurisprudence is inapplicable because the language of the NGA and FPA differ on this issue, and the natural gas cases turned on the existence of a regulatory gap that does not exist in the electricity field. FERC also asserts that its interpretation of the FPA's jurisdictional grant is entitled to deference under Chevron U.S.A. Inc. v. Natural Resources Defense Council, 467 U.S. 837 (1984).

Both FPA s 201(a) and (b) clearly and unambiguously confer upon FERC jurisdiction over the "transmission of electric energy in interstate commerce." FPA s 201(c) further provides that "electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof." 16 U.S.C. s 824(c). In both Florida Power & Light and Jersey Central Power & Light, the Supreme Court considered whether certain indirect transmissions of electrical power across state lines represented transmissions in interstate commerce.

Jersey Central Power & Light involved the transmission of energy generated by Jersey Central in New Jersey. Jersey Central transmitted electricity to the New Jersey transmission facilities of another company, Public Service, which then transmitted the power first to another of its New Jersey facilities, and then on to a facility owned by yet a third company and located in the middle of a body of water separating New Jersey from Staten Island, New York. The third company in the chain then transmitted the energy first to its own facilities in New York, then finally and ultimately to consumers in New York. Jersey Central's own transmission facilities were located solely in New Jersey, as were

the facilities used by Public Service to receive the transmissions from Jersey Central.

The Supreme Court recognized that Jersey Central had no control over the transmissions' destination once the electricity was delivered to Public Service, see Jersey Central, 319 U.S. at 65, and that the total flow of electricity from Jersey Central to New York was small. See id. at 66. Nevertheless, because some electricity generated by Jersey Central in New Jersey was consumed in New York, the Court upheld FERC's jurisdiction under FPA s 201 over Jersey Central's transmission facilities as utilized for transmissions in interstate commerce. See id. at 67. The Court said that, under FPA s 201(a) and (b), FERC's power extends over all facilities "which transmit energy actually moving in interstate commerce." Id. at 72. The Court emphasized, however, that "mere connection" of one utility's transmission facilities to those of another transmitting in interstate commerce was insufficient for jurisdiction under FPA s 201. Id.

The Court revisited the issue in Florida Power & Light, which involved certain Florida and Georgia utilities who voluntarily connected their transmission facilities to coordinate their activities and exchange power as required to meet temporary needs. Like Jersey Central, FP&L's transmission facilities were confined to Florida, and none of FP&L's transmission lines directly connected with those of out-of-state companies. Nevertheless, because FP&L was a member of a group of interconnected utilities, its transmission lines connected with those of other Florida utilities; and the lines of one of those other utilities, Florida Power Corp., interconnected just short of Florida's northern border with those of Georgia Power Co. Records indicated that power transfers between FP&L and Florida Power coincided with transfers between Florida Power and Georgia Power.

In Jersey Central, logs of the relevant companies demonstrated at least a dozen occasions when facilities in New York drew power from certain lines at times when Jersey Central was the only supplier of electricity to those lines. See Florida Power & Light, 404 U.S. at 459. By way of contrast,

there was no similar evidence that power generated by FP&L specifically passed through Florida Power to Georgia Power, with Florida Power serving as a mere conduit. See id. At best, company records demonstrated instances when transfers between FP&L and Florida Power occurred at or about the same time as transfers between Florida Power and Georgia Power. See id. at 457.

Instead, the Court considered two theories by which FP&L's power could be deemed transmitted across state lines. The first posited a cause and effect relationship by which every flick of a light switch would cause every generator on a multi-state interconnected system to produce some quantity of additional electricity to maintain the system's balance, and thus to transmit electric energy throughout the system and across state lines. The second theory suggested that where the transmission lines of two utilities interconnect, their energy commingles, such that inevitably some energy transmitted by FP&L to Florida Power was then transmitted to Georgia Power and across state lines.

Despite its statement in Jersey Central that "mere connection determines nothing," 319 U.S. at 72, the Court relied on the second of these theories to conclude that FP&L's facilities were transmitting energy in interstate commerce, and left open the possible validity of the cause and effect theory. See 404 U.S. at 462-63. Writing in dissent, Justice Douglas characterized the Court's opinion as "mean[ing] that every privately owned interconnected facility in the United States ... is within the [Federal Power Commission's] jurisdiction," such that otherwise local utilities would now be subject to the mandates of the federal bureaucracy. Id. at 471 (Douglas, J., dissenting).

The Supreme Court has interpreted the language in FPA s 201 regarding FERC's jurisdiction over transmissions in interstate commerce. We are bound by the High Court's dictates to conclude that the FPA gives FERC the authority to regulate the transmissions at issue here, whether retail or wholesale. Even if the Court had not so spoken, however, and even if we independently concluded that the statute's text

was less than clear, it is the law of this circuit that the deferential standard of Chevron U.S.A. Inc. v. Natural Resources Defense Council, 467 U.S. 837 (1984), applies to an agency's interpretation of its own statutory jurisdiction. See Oklahoma Natural Gas Co. v. FERC, 28 F.3d 1281, 1283-84 (D.C. Cir. 1994). As guided by Chevron, unless Congress has directly spoken to the contrary, or FERC has unreasonably or impermissibly interpreted the statute, we must defer to the Commission's construction of ambiguous provisions of the FPA. See Chevron, 467 U.S. at 842-43. In this age of interconnected transmission grids, and given the accompanying technological complexities, we would be hard pressed to conclude that FERC's interpretation of s 201(c) as giving it jurisdiction over both wholesale and retail transmissions is unreasonable or impermissible.

Nevertheless, we are not persuaded that this conclusion requires FERC to mandate unbundling and assert jurisdiction over all retail transmissions. Just as FPA s 201 gives FERC jurisdiction over transmissions in interstate commerce and sales at wholesale, the statute also clearly contemplates state jurisdiction over local distribution facilities and retail sales. The statute is much less clear about exactly where the lines between those activities are to be drawn. A regulator could reasonably construe transmissions bundled with generation and delivery services and sold to a consumer for a single charge as either transmission services in interstate commerce or as an integral component of a retail sale. Yet FERC has jurisdiction over one, while the states have jurisdiction over the other. FERC's decision to characterize bundled transmissions as part of retail sales subject to state jurisdiction therefore represents a statutorily permissible policy choice to which we must also defer under Chevron. Accordingly, we affirm FERC's decisions in Order 888 to assert jurisdiction over unbundled retail transmissions while leaving regulation of bundled retail transmissions to the states.

B. Local Distribution Facilities

 $\,$ FPA s 201(b) explicitly excludes from FERC jurisdiction "facilities used in local distribution or only for the transmis-

sion of electric energy in intrastate commerce." 16 U.S.C. s 824(b)(1). Historically, wholesale sales have not for the most part involved local distribution facilities. FERC claims that increased unbundling gives resellers the opportunity to reconfigure the wholesale sales so that they might now occur on those facilities which traditionally have been treated as local distribution facilities. Moreover, FERC's assertion of jurisdiction over the transmission component of unbundled retail sales blurred the line between local distribution facilities and facilities used for transmission in interstate commerce

In Order 888, FERC claimed exclusive authority over the regulation of facilities which sell and transmit electricity at wholesale to customers who will resell the electricity to end users. With respect to unbundled retail sales, FERC acknowledged that transmissions by "facilities used in local distribution" are beyond the Commission's jurisdiction, while facilities engaged in interstate transmission are subject to FERC jurisdiction under FPA s 201(a). Thus FERC adopted a seven factor jurisdictional test to identify whether a facility is a local distribution facility subject to state jurisdiction or a facility engaged in interstate transmission subject to FERC jurisdiction.6 In short, under Order 888, when a

⁶ The Commission's seven factor test involves evaluating on a case-by-case basis whether the activities of the facilities in question correspond with seven specific indicators of local distribution:

⁽¹⁾ Local distribution facilities are normally in close proximity to retail customers.

⁽²⁾ Local distribution facilities are primarily radial in character.

⁽³⁾ Power flows into local distribution systems; it rarely, if ever, flows out.

⁽⁴⁾ When power enters a local distribution system, it is not reconsigned or transported on to some other market.

⁽⁵⁾ Power entering a local distribution system is consumed in a comparatively restricted geographical area.

⁽⁶⁾ Meters are based at the transmission/local distribution

public utility is engaged in wholesale transmission, FERC has jurisdiction regardless of the nature of the facility; but when the public utility is engaged in unbundled retail transmission, the facts and circumstances will determine whether the facilities are subject to FERC or state jurisdiction.

The state petitioners argue that FERC's dual approach radically expands its jurisdiction and violates Congress' explicit directive in FPA s 201(b) that regulation of local distribution facilities be left to the states. The states contend that Congress clearly intended to preserve state jurisdiction over local distribution facilities, regardless of whether the energy comes from out of state or the sale is a wholesale sale. The states maintain that, by claiming jurisdiction over any facility transporting energy for resale, regardless of whether the facility might otherwise be a local distribution facility under the seven factor test, FERC has adopted the circular reasoning that wholesale sales do not occur on local distribution facilities, so any facility that engages in wholesale activities is not a local distribution facility. The states contend further that FERC offers no reasoned analysis of why local distribution should be defined differently for wholesale versus retail sales. The states finally charge that, under Order 888, nearly identical facilities would be under federal jurisdiction and state jurisdiction for different customers receiving indistinguishable service. Such a situation, they contend, will only encourage energy marketers to choose their regulator by using middlemen to shift the point at which title to the power transfers, and thus undermine the jurisdictional certainty that Order 888 states is necessary for competition.

FERC responds that it is not asserting jurisdiction over local distribution facilities, but asserts that when a public utility delivers unbundled energy at wholesale to a supplier for the purpose of resale to an end user, FPA s 201 gives FERC unqualified authority to assert jurisdiction over the facility used to effect that transaction. When the public utility is engaged in unbundled retail transmission, however,

Order 888, p 31,036 at 31,981.

the circumstances of a specific case will determine whether the facilities used are subject to FERC or state jurisdiction. The arguments by the states do no more than raise policy concerns which are for FERC and not the court. See Arent v. Shalala, 70 F.3d 610 (D.C. Cir. 1995).

Intervening again on FERC's behalf on this issue, the U&D petitioners add that FERC's use of different tests is appropriate given the differences in the two separate jurisdictional grants of FPA s 201. The intervenors argue that, given the statute's clear grant to FERC of jurisdiction over all aspects of wholesale sales, FERC is fully justified in employing a functional test to identify wholesale transmissions. In contrast, because FERC's jurisdiction over retail sales is limited to transmissions in interstate commerce, the seven factor test is more appropriate.

interface to measure flows into the local distribution system. (7) Local distribution systems will be of reduced voltage.

We agree that FERC's dual approach to assessing its jurisdiction stems from the fact that FPA s 201 contains more than one jurisdictional grant. FPA s 201(b) denies FERC jurisdiction over local distribution facilities "except as specifically provided in this subchapter and subchapter III." 16 U.S.C. s 824(b)(1) (emphasis added). FPA s 201(a) makes clear that all aspects of wholesale sales are subject to federal regulation, regardless of the facilities used. FERC's assertion of jurisdiction over all wholesale transmissions, regardless of the nature of the facility, is clearly within the scope of its statutory authority. Moreover, various cases support the proposition that FERC regulates all aspects of wholesale transactions. See, e.g., Duke Power Co. v. FPC, 401 F.2d 930, 935-36 (D.C. Cir. 1968) (noting that the FPC regulates public utility facilities used in wholesale transmissions or sales in interstate commerce); Arkansas Power & Light Co. v. FPC, 368 F.2d 376, 383 (8th Cir. 1966) (stating that the functional use of the transmission lines--wholesale versus retail--controls); Wisconsin-Michigan Power Co. v. FPC, 197 F.2d 472, 477 (7th Cir. 1952) (finding that transmission facilities used at wholesale are not "local distribution facilities").

The seven factor test applies only to unbundled retail sales, where FERC seeks to regulate pursuant to the separate grant of jurisdictional authority over transmissions in interstate commerce. In this context, the definition of "facilities used in local distribution" becomes relevant. The statute does not define "facilities used in local distribution," but instead leaves that task to FERC. As Chevron counsels us, FERC's interpretation of undefined and ambiguous statutory terms is entitled to deference. See Chevron, 467 U.S. at 842-43.

FERC has adopted a multi-factor test to determine the nature of transmission facilities. In a footnote, Order 888 says that distribution-only facilities which sell only at retail will still be considered local distribution facilities. See Order 888, p 31,036 at 31,981 n.99. This is consistent with the fact that states historically have regulated bundled retail sales to end users. However, Order 888 implicitly recognizes the current reality that many primarily retail utilities engage in both local distribution and interstate transmissions, and seeks through the seven factors to discern each facility's primary function. We cannot agree with the state petitioners that this approach is unreasonable or otherwise impermissible.

IV. Reciprocity

Section 6 of the Tariff contains a reciprocity provision resting on the principle that any public utility offering "non-discriminatory open access transmission for the benefit of customers should be able to obtain the same non-discriminatory access in return." Order 888, p 31,036 at 31,760. Non-public utilities—those outside the Commission's jurisdiction because, for instance, they are state—owned, see 16 U.S.C. s 824(f)—would otherwise not have to offer open-access. Under the Tariff, a public utility does not have to offer them access unless they reciprocate. In order to avoid controversies between public and non-public utilities regarding reciprocal service, the Commission adopted a voluntary "safe harbor" provision pursuant to which non-public utilities could submit a transmission tariff to the Commission for a

determination whether it satisfied the reciprocity condition. If it did, the public utility would have to offer service; if it did not, the public utility could refuse service (although it had the option of waiving the reciprocity condition, as did the Commission itself).

A. Indirect Regulation of Non-Jurisdictional Utilities

Nebraska Public Power District (NPPD), a state entity, provides electrical generation, transmission and distribution service to wholesale and retail customers throughout Nebraska.7 It claims that the Commission, through the reciprocity provision, has reached beyond its statutory authority and is illegally attempting to regulate entities, including NPPD, over which the Commission has no jurisdiction, in violation of the Federal Power Act and the Tenth Amendment to the Constitution. NPPD admits that pursuant to Nebraska law, all state power districts are obligated to provide open access transmission service. They have been doing so for years. This is doubtless why, after Order No. 888 issued, another Nebraska public power district so easily obtained a safe harbor declaration. See Omaha Pub. Power Dist., 81 F.E.R.C. p 61,054 (1997). In light of this, the Commission argues -- and we agree -- that NPPD's petition is unripe. Since NPPD already offers open access transmission, it is far from certain that the reciprocity provision will have any effect on it.8 It certainly has not demonstrated any particular hardship that it would suffer if we refused to engage in preenforcement judicial review. See AT&T Corp. v. Iowa Utils. Bd., 525 U.S. 366, 386 (1999). From all that appears, no public utility has refused, or even threatened to refuse, to give NPPD access to its transmission system in the wake of

^{7 &}quot;Nebraska is unique among the States in the Union in that all generation, transmission and distribution service is provided by public entities, municipalities and cooperatives whose governing boards are responsible to, and serve at the voting pleasure of, the rate-payers they serve." NPPD Brief at 2.

⁸ The Commission made clear that existing contracts will not be affected. See Order 888-A, p 31,048 at 30,181.

Order No. 888.9 Given the fact that public utilities may waive the reciprocity provision anyway, and that NPPD has the same option of obtaining a safe harbor as did the Omaha Public Power District, we are not persuaded that the provision is currently altering NPPD's conduct of its affairs or that withholding judicial review will cause it any hardship whatev-"Unlike the drug manufacturers in Abbott Laboratories [v. Gardner, 387 U.S. 136 (1967)], but like the cosmetics companies in Toilet Goods Ass'n v. Gardner, 387 U.S." 158, 164 (1967), NPPD need not change its "behavior or risk costly sanctions." Clean Air Implementation Project v. EPA, 150 F.3d 1200, 1205 (D.C. Cir. 1998). Furthermore, exactly how the Commission will fill in the contours of the reciprocity provision remains to be seen. That it may defer to state commissions, as it indicated in Houston Lighting & Power Co., 81 F.E.R.C. p 61,015 (1997), order on reh'g, 83 F.E.R.C. p 61,181 (1998), affects NPPD's contention that the Commission is seeking to bring about nationwide uniformity by forcing non-public utilities to comply with its "detailed man-NPPD Brief at 5. We therefore believe the issues raised would benefit from a more concrete setting in which NPPD can demonstrate exactly how the reciprocity provision has affected its primary conduct. See Clean Air Implementation Project, 150 F.3d at 1204. For all these reasons, NPPD's challenge to the reciprocity provision is not ripe for judicial review.

B. Limitation on Reciprocity

The Investor Owned Utilities (IOUs) challenge the following limitation on reciprocity: non-public utilities owe reciprocal open access only to the public utility from which they take open access service--not to all utilities. See IOU Brief at 40-44; IOU Reply Brief at 18-20. These petitioners argue that the Commission has left open the door for non-public utilities

⁹ For this reason we find unpersuasive NPPD's claim that the Tariff's reciprocity provision places it at a disadvantage in negotiations because a public utility may simply refuse to provide service without any fear of a Commission enforcement action. See NPPD Reply Brief at 4-5.

to discriminate against all other utilities and that it has done so solely because of tax considerations that no longer apply.

We agree with Commission counsel that tax considerations were not the only basis on which the Commission's limitation rested. The Commission stated that "the reciprocity requirement strikes an appropriate balance by limiting its application to circumstances in which the non-public utility seeks to take advantage of open access on a public utility's system." Order 888, p 31,036 at 31,762. The Commission also explained that it "do[es] not have the authority to require non-public utilities to make their systems generally available." Id. at 31,761. The Commission stated also that it did not want broad open access reciprocity to jeopardize the tax-exempt financing nonpublic utilities enjoy, 10 that the IRS was then reexamining the question, id. at 31,762, and that if the tax issue is favorably resolved, it will reconsider the matter. Order 888-A, p 31,048 at 30,287. The IRS has now acted. See Temporary Regulations s 1.141-7T(f), in 63 Fed. Reg. 3256 (1998). IOUs argue that we must therefore remand for reconsideration. See IOU Brief at 44 (citing Panhandle Eastern Pipeline v. FERC, 890 F.2d 435, 439 (D.C. Cir. 1989); National Fuel Gas Supply Corp. v. FERC, 899 F.2d 1244, 1249-50 (D.C. Cir. 1990); Ciba-Geigy v. EPA, 46 F.3d 1208 (D.C. Cir. 1995)).

We think not. So far as we know, the IRS has not finalized its temporary and proposed regulations. The IRS acknowledges that its temporary regulations "raise[] a number of complex technical issues" many of which "may need to be addressed legislatively" and it anticipates that the finalization process will take three years to accomplish. 63 Fed. Reg. at 3258-59. Second, as the Commission indicates, the possible tax consequences of requiring open access from non-jurisdictional utilities was its secondary concern. The Commission's greater concern was its lack of jurisdiction to do what the IOUs ask. And lastly the Commission should be

¹⁰ See 26 U.S.C. ss 141, 142 (permitting "private activity" bonds and "local furnishing" bonds, respectively).

taken at its word that it will reconsider the scope of reciprocity when and if the temporary tax regulations are finalized.

V. Stranded Cost Recovery Provisions

Ordering open access transmission, Order 888-A explains that "[t]he most critical transition issue that arises as a result of the Commission's actions in this rulemaking is how to deal with the uneconomic sunk costs that utilities prudently incurred under an industry regime that rested on a regulatory framework and a set of expectations that are being fundamentally altered." Order 888-A, p 31,048 at 30,346. "If a former wholesale requirements customer or a former retail customer uses the new open access to reach a new supplier," FERC said, "we believe that the utility is entitled to recover legitimate, prudent and verifiable costs that it incurred under the prior regulatory regime...." Order 888, p 31,036 at 31,789.

According to FERC, these "stranded" costs consist predominantly of costs of building generation capacity, which utilities incurred with the expectation that they would use the additional capacity to serve existing customers. See Notice of Proposed Rulemaking, Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, FERC Stats. & Regs. p 32,507 at 32,863-64, 59 Fed. Reg. 35,274 (1994) ("Stranded Cost NOPR"). Because of the increased competition in the generation market that will result from open access, this capacity may become underutilized or uneconomical, i.e., "stranded." Stranded costs also include nonrecurring costs approved by regulators that, in order to avoid rate increases, were recovered over a period of years instead of at the time the expenditures were made. Known as "regulatory assets," these costs include deferred income taxes, deferred pension and other employee benefit and retirement costs, research and development, extraordinary property losses, and the phase-in of new plant costs. Nuclear decommissioning costs and costs to buy out high-priced fuel and power contracts may also become stranded as a result of open access.

Exercising its exclusive jurisdiction over wholesale power sales, FERC through Order 888 gave utilities the opportunity to recover their stranded costs from former wholesale customers who take advantage of open access transmission to purchase power from other suppliers. Order 888, p 31,036 at 31,810. With respect to stranded costs resulting from state-ordered retail wheeling, Order 888 provides that FERC will consider stranded cost claims only when state regulatory agencies lack authority to do so. Id. at 31,824-25. Order 888 also designated FERC as the primary forum for stranded cost claims stemming from what are known as new municipalizations and municipal annexations. See Order 888-A, p 31,048 at 30,404; Order 888-B, 81 FERC at 62,104. Stranded costs in these situations result from retail (as opposed to wholesale) power sales.

Petitioners challenge nearly every aspect of FERC's stranded cost policy as set forth in Order 888, from the mechanics of calculating customers' stranded cost obligations to whether FERC has authority to address stranded costs at all. We begin with those challenges that relate to the recovery of wholesale stranded costs (Section V.A), then turn to challenges to Order 888's treatment of retail stranded costs (Section V.B). We affirm FERC's stranded cost policy in all respects, except we vacate that portion of the orders dealing with the treatment of energy costs in the market option and remand to FERC for further explanation. See Section V.A.5.c.

A. Wholesale Stranded Costs

In requiring nondiscriminatory open access transmission as a remedy for undue discrimination, FERC recognized that it "cannot change the rules of the game without providing a mechanism for recovery of the costs caused by such regulatory-mandated change." Order 888-A, p 31,048 at 30,346. Under the pre-open access regulatory regime, utilities entered into long-term contracts to make wholesale power sales to municipal, cooperative, and investor-owned utilities. See Stranded Cost NOPR, p 32,507 at 32,862. Because these customers had no source of power supply other than

their historic utility, these contracts were typically extended at the end of their term. This produced an implicit obligation by the utilities to continue satisfying their customers' power needs, as well as a reciprocal expectation by customers of continued service. See id. at 32,863-64. To satisfy expected customer demand, utilities invested money, built facilities, and entered into long-term fuel or power contracts, relying on the "regulatory compact" under which utility shareholders accepted lower rates of return on their investment in exchange for the certainty of regulated rates and resulting ability to recover prudently incurred costs. See Notice of Proposed Rulemaking, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, FERC Stats. & Regs. p 32,514 at 33,049, 60 Fed. Reg. 17,662 (1995).

Order 888 fundamentally undermines utilities' expectation of continued service and cost recovery. A utility's requirements customers may now use the utility's open access transmission service to purchase power from other suppliers at the end of their contract terms. If customers leave before paying their share of costs the historic utility incurred on their behalf, the utility will be left with stranded costs, which it will either absorb or shift to remaining customers.

Unless utilities are able to recover stranded costs, FERC reasoned, their ability to compete and attract investor capital in a deregulated market may be seriously impaired. FERC therefore decided that it had to "address recovery of the transition costs of moving from a monopoly-regulated regime to one in which all sellers can compete on a fair basis and in which electricity is more competitively priced." Order 888, p 31,036 at 31,635. In reaching this conclusion, FERC relied on its experience in restructuring the natural gas industry, where this court faulted it for failing to provide transitional mechanisms such as stranded cost recovery. FERC explained: "We have learned from our experience in the natural gas area the importance of addressing competitive transition issues early and with as much certainty to market participants as possible." Id.

In shaping its stranded cost recovery mechanism, FERC had to balance two competing interests: speeding the transition to competition versus protecting utilities that had incurred costs with the expectation that their customers would remain and eventually pay those costs through electricity rates. Allowing recovery of stranded costs, FERC acknowledged, would delay full realization of the benefits of open access--lower electricity rates--because customers facing stranded cost liability might continue purchasing power from their historic utility even though competitors are selling power at lower rates. See Order 888-A, p 31,048 at 30,355. Indeed, a customer would only switch suppliers if the competitor offered a rate less than the historic utility's rate plus the customer's stranded cost liability. But given the highly regulated nature of the electricity industry, in which utilities incurred costs with the expectation of recouping them, FERC concluded that the delay was a necessary component of its open access program. See id. Mindful of its ultimate goal of converting the electricity industry into a competitive market, however, FERC fashioned the stranded cost recovery provisions to be transitional, allowing utilities to recover stranded costs only in connection with wholesale requirements contracts entered into on or before July 11, 1994 (the date of the stranded cost notice of proposed rulemaking). See 18 C.F.R. s 35.26(b)(8), 35.26(c)(1)(v)-(vi).

As to precisely who should pay for stranded costs, utilities and customers not surprisingly had dramatically different positions. Customers argued that utilities should absorb most, if not all, stranded costs. Utilities (and their investors) argued that customers should pay.

Facing an enormously difficult task in balancing these sharply conflicting positions, FERC crafted a rule that requires customers to pay stranded costs but only in certain circumstances. Most important, in order to recover stranded costs from a customer, the historic utility must prove that it had a reasonable expectation of continued service to that particular customer for a certain number of years beyond the end of the contract term; a utility unable to prove such an expectation may not recover stranded costs under Order 888.

See 18 C.F.R. s 35.26(c)(2)(i). Moreover, a utility able to demonstrate a reasonable expectation of continued service may recover stranded costs only if its wholesale customer actually takes advantage of the utility's open access tariff to obtain access to a new generation supplier at the end of its contract term (i.e., the former customer continues to use the historic utility's transmission service but no longer purchases power from it). See 18 C.F.R. s 35.26(b)(1)(i). Through these two limitations, FERC balanced the interests of utilities and customers by allowing utilities to recover their stranded costs only if they can demonstrate a reasonable expectation of continued service and requiring customers to pay those costs only if they take advantage of their historic utility's open access transmission to reach cheaper sources of power. And of course, no customer will have to pay stranded costs at all if it continues purchasing power from its historic utility throughout the period during which the utility has a reasonable expectation of continued service--precisely what the customer would have done in the absence of Order 888's open access requirement.

Under Order 888, stranded costs are calculated on a "revenues lost" basis. A departing customer's stranded cost obligation equals the estimated revenue it would have paid had it continued to purchase power from the historic utility minus the current market value of the power it would have purchased, calculated over the period the utility is determined to have a reasonable expectation of continued service to that customer. See 18 C.F.R. s 35.26(c)(2)(iii). In other words, the stranded cost formula is not tied to particular stranded assets or contractual commitments, but rather awards utilities the difference between the pre-open access cost-based rate and the post-open access market rate. Once a customer's stranded cost liability is calculated, it may pay through a lump-sum payment, installment payments, or a surcharge to the transmission rate charged by the historic utility. See Order 888, p 31,036 at 31,799.

Before turning to petitioners' arguments, we emphasize what should be obvious from the foregoing summary of Order 888: Order 888 awards stranded costs to no one. It does

nothing more than establish a mechanism by which utilities may seek to recover stranded costs. To recover stranded costs, a utility must demonstrate its continued expectation of service at an evidentiary hearing. The customer may appear at that hearing and, through evidentiary submissions of its own, attempt to demonstrate that the utility had no such expectation. Only after such a hearing may FERC decide whether a utility can recover stranded costs and, if so, how much

Petitioners mount many challenges to Order 888's stranded cost recovery provisions. For purposes of analysis, we group these challenges into five categories: (1) challenges to FERC's authority to provide for stranded cost recovery (section V.A.1); (2) claims that Order 888 conflicts with cost causation principles and case law developed under the Natural Gas Act (section V.A.2); (3) challenges to FERC's Mobile-Sierra findings (section V.A.3); (4) claims that FERC arbitrarily and capriciously failed to provide for stranded cost recovery by certain entities, such as transmission dependent utilities and generation and transmission cooperatives (section V.A.4); and (5) challenges to various technical aspects of Order 888's stranded cost recovery provisions (section V.A.5).

FERC's Authority to Provide for Stranded Cost Recovery

A group called Petitioners Opposing Stranded Cost Recovery ("POSCR") advances three challenges to FERC's authority to provide for stranded cost recovery: (1) as a factual matter, utilities could never have had a reasonable expectation of continued service to wholesale customers beyond the contract term; (2) sections 206 and 212 of the Federal Power Act ("FPA") forbid stranded cost recovery; and (3) our decision in Cajun Elec. Power Coop., Inc. v. FERC, 28 F.3d 173 (D.C. Cir. 1994), holds that stranded cost recovery is anticompetitive. We consider each argument in turn.

a. Reasonable expectation of continued service

To recover stranded costs relating to a specific departing wholesale requirements customer, a utility must show that it

had a reasonable expectation of service to that customer beyond the term of its existing contract. See 18 C.F.R. s 35.26(c)(2)(i). Pointing out that contracts define the extent of the parties' obligations and that customers have long exercised their rights to purchase power from other suppliers at the end of their contract terms, POSCR contends that utilities could never have had an expectation of service beyond their contract terms. In considering this argument it is important to remember that Order 888 does not itself award stranded costs; it merely establishes a procedure by which utilities may petition FERC in individual proceedings to recover stranded costs from a specific customer based on a specific evidentiary showing. Utilities failing to show an expectation of continued service will be unable to recover stranded costs. POSCR's challenge thus amounts to a claim that no utility could ever, under any circumstances, have had a reasonable expectation to serve a wholesale customer beyond the term of its contract. We review this claim under the APA's familiar arbitrary and capricious standard. See 5 U.S.C. s 706(2)(A); Williams Field Services Group, Inc. v. FERC, 194 F.3d 110, 115 (D.C. Cir. 1999).

Responding to this same challenge in Order 888-A, FERC explained that utilities historically had an implicit obligation to serve customers beyond the contract term for a simple reason: Customers had no means of reaching alternative suppliers. See Order 888-A, p 31,048 at 30,354. As part of that obligation to serve, FERC found, a local utility "had a concomitant obligation to plan to supply [its] customers' continuing needs, and planned its system taking account of the wholesale load. In many cases the wholesale customers participated by supplying load forecasts." Id. In making capital decisions and predicting future demand, utilities frequently consulted with their wholesale requirements customers. For these reasons, FERC concluded, utilities may have a reasonable expectation of continued service to particular customers. See id. at 30,354-55.

Not only is FERC's judgment about utilities' reasonable expectations precisely the type of policy assessment to which we owe great deference, but POSCR points to nothing sug-

gesting that FERC's reasoning is arbitrary and capricious. In fact, POSCR's argument completely ignores the highly regulated nature of the electricity industry prior to Order 888. Unlike competitive markets, where buyers may freely purchase from many sellers, the monopolistic character of the electricity industry, combined with the congressionally imposed regulatory structure, left requirements customers highly dependent on a single supplier -- their historic utility. Indeed, as intervenors point out, utilities were even unable to choose not to renew an expiring wholesale requirements contract without first notifying FERC. See 18 C.F.R. s 35.15 (1995) (repealed by Order 888). Although it may well be true, as POSCR argues, that some wholesale customers have long been able to purchase unbundled transmission service, we think such evidence is best reserved for individual proceedings, where a departing customer can attempt to refute the utility's claim that it had an expectation of continued service.

b. Sections 206 and 212 of the FPA

Section 206(a) of the FPA gives FERC authority to "determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force" if it finds that any existing arrangement "is unjust, unreasonable, unduly discriminatory or preferential." 16 U.S.C. s 824e(a). Relying on section 206(a) as the basis for Order 888, FERC found that utilities had used their monopoly transmission power to discriminate against potential competitors and that such practices would increase as competitive pressures in the industry increased. Order 888, p 31,036 at 31,676, 31,682.

POSCR contends that Order 888's stranded cost recovery provisions themselves violate FERC's own construction of section 206, the construction FERC relied on as the basis for the open access rule. According to POSCR, "[t]he stranded cost rule perpetuates the very 'discrimination' FERC found unlawful, and subjects the same victims—customers held hostage to uneconomic electric generation by transmission monopolists—to continued abuse."

In challenging FERC's policy decision to provide for stranded cost recovery, POSCR conflates the violation (FERC's generic determination that utilities' practice of prohibiting access to their transmission lines on reasonable terms was unduly discriminatory) with the remedy (FERC's more limited finding that recovery of stranded costs in particular circumstances would not be unduly discriminatory). FERC has not, as POSCR contends, given "unduly discriminatory" different meanings; rather, it has applied the term in different contexts.

POSCR's argument thus boils down to a challenge to FERC's conclusion that the stranded cost recovery prescribed in Order 888 is not unduly discriminatory, a challenge meriting arbitrary and capricious review. Viewed through this lens, we think FERC more than adequately explained why it concluded that stranded cost recovery is not unduly discriminatory—stranded cost recovery, FERC said, is transitional only, follows cost causation principles, and requires utilities to prove that they had a reasonable expectation of continued service. FERC faced an enormously difficult task. It had to balance the transition to competitive markets against the need to maintain the competitiveness of utilities that had incurred costs based on a reasonable expectation that they would recoup them. We find nothing either arbitrary or capricious in how FERC struck this balance.

POSCR next contends that stranded cost recovery violates section 212 of the FPA, which governs the rates for transmission ordered by FERC pursuant to section 211. 16 U.S.C. ss 824j-k. Section 212 allows FERC to order "rates, charges, terms, and conditions which permit the recovery by [a transmitting] utility of all the costs incurred in connection with the transmission services and necessary associated services, including, but not limited to, an appropriate share, if any, of legitimate, verifiable and

economic costs, including taking into account any benefits to the transmission system of providing the transmission service, and the costs of any enlargement of transmission facilities." 16 U.S.C. s 824k(a). Contending that "economic costs" cannot be read to include payment of stranded costs, which by definition relate to generation (not transmission) services, POSCR reads section 212 to preclude stranded cost recovery.

Straightforward application of the Chevron doctrine demonstrates the lack of merit in this argument. See Chevron, U.S.A., Inc. v. Natural Resources Defense Council, 467 U.S. 837 (1984). Because Congress has not "directly spoken to the precise question at issue"—do "economic costs" include stranded costs?—and because nothing in the statute precludes recovering through transmission rates costs that were traditionally recovered through generation rates, the term "economic costs" is ambiguous. Id. at 842.

Proceeding to Chevron's second step, we ask whether FERC has reasonably interpreted the term "economic costs." See id. at 843. We have no doubt that it has. As FERC explained, but for section 211 wheeling orders, there would be no stranded costs. Stranded costs, according to FERC, are therefore economic costs of section 211 wheeling. See Order 888-A, p 31,048 at 30,390. POSCR offers nothing to undermine this eminently reasonable interpretation of the statute.

c. Implications of Cajun

Next, POSCR contends that our decision in Cajun Elec. Power Coop., Inc. v. FERC, 28 F.3d 173 (D.C. Cir. 1994), condemns stranded cost recovery as anticompetitive. A pre-Order 888 decision, Cajun reviewed two tariffs allowing a utility, Entergy Corporation, to sell power at market rates, and a third tariff providing for open access to Entergy's transmission services at cost-based rates. The third tariff gave Entergy an opportunity to recover stranded costs from customers who no longer purchase power from Entergy but use its transmission lines to reach other suppliers--exactly the circumstances in which Order 888 provides for stranded cost recovery. Under the tariff, the stranded cost charge was included in Entergy's transmission rate. See id. at 175-77.

Characterizing the stranded cost provision as a "tying arrangement" under antitrust law, Cajun explained that under the tariff, Entergy could charge a former customer for the cost of generation services when the customer wished to purchase only transmission services; because Entergy has a monopoly over transmission, customers would have no choice but to pay costs relating to generation they no longer wanted from Entergy. Id. at 177-78. Thus, because "Entergy could use its monopoly over transmission services to eliminate competition in the market for generation services," the net effect of the tariffs may be anticompetitive. Id. at 176.

Of significance to this case, however, we did not strike down the tariffs. Instead, we remanded the case for FERC to determine "how much competition in fact is dampened" by the stranded cost provision. Id. at 178. Thus, contrary to POSCR's suggestion, Cajun does not represent a blanket condemnation of stranded cost recovery; rather, recognizing that such recovery could be anticompetitive, Cajun directed FERC to evaluate and justify the potential anticompetitive impact. This is precisely what FERC has done in Order 888. It expressly considered the anticompetitive effects of stranded cost recovery. See Order 888-A, p 31,048 at 30,372-74. Then, stressing the transitional nature of the recovery and the fact that recovery was compelled by the open access requirement, which utilities could not have anticipated, FERC concluded that the limited anticompetitive effects of stranded cost recovery were both a necessary and acceptable consequence of the transition to competition. See id. Not only has POSCR offered no evidence that would lead us to question FERC's conclusion, but such judgments about anticompetitive effects are "the kind of reasonable agency prediction about the future impact of its own regulatory policies to which we ordinarily defer." Louisiana Energy and Power Auth. v. FERC, 141 F.3d 364, 370 (D.C. Cir. 1998).

2. Natural Gas Precedent and Conformance to Cost Causation Principles

Having rejected POSCR's arguments that FERC lacks authority to authorize stranded cost recovery, we turn to its

argument that FERC has failed adequately to explain why Order 888 requires departing customers to pay one-hundred percent of stranded costs. In support of this argument, POSCR claims that our decisions reviewing FERC's restructuring of the natural gas industry require cost sharing; it also argues that Order 888's stranded cost recovery conflicts with the cost causation principles that traditionally govern allocation of costs.

a. Natural gas precedent: AGD, K N Energy, and UDC

In introducing competition into the electricity industry, FERC has taken essentially the same path that it took in restructuring the natural gas industry, although what FERC has done in a single order in the electricity industry (Order 888) it did in a series of orders in the natural gas industry. Because POSCR relies so heavily on FERC's natural gas orders and our decisions reviewing them, we begin by summarizing them in some detail.

Finding practices in the natural gas industry "unduly discriminatory" in violation of the Natural Gas Act, FERC began by issuing Order 436, which "unbundled" pipeline transportation and merchant functions. Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, Order No. 436, FERC Stats. & Regs. p 30,665, 50 Fed. Reg. 42,408 (1985) (rehearing orders omitted). At the time of Order 436, pipelines were facing enormous liabilities under long-term "take-or-pay" contracts. Entered into when gas prices were expected to rise, these contracts obligated pipelines to purchase minimum quantities of gas from wellhead producers at fixed prices that turned out to be well in excess of market prices. See Associated Gas Distributors v. FERC, 824 F.2d 981, 1021 (D.C. Cir. 1987) ("AGD"). Although FERC estimated take-or-pay liabilities at billions of dollars, and although Order 436 would exacerbate the take-or-pay problem by providing incentives to pipeline customers to purchase gas from cheaper suppliers, FERC declined to take any action with respect to the contracts. In AGD, we found that FERC's decision to do nothing failed to meet the requirements of reasoned decisionmaking, citing FERC's "seeming

blindness to the possible impact of Order No. 436 on take-orpay liability" and permanent market distortions that may result from FERC's inaction. Id. at 1021-23, 1025. Specifically, we noted, in words echoed by FERC years later in Order 888, that consumers who purchased from the "least nimble" local distribution companies would "be stuck with the burden of the overpriced gas." Id. at 1023.

In response to AGD, FERC issued Order 500. Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, Order No. 500, FERC Stats. & Regs. p 30,761, 52 Fed. Reg. 30,334 (1987) (rehearing orders omitted). Recognizing that no one segment of the gas industry was wholly responsible for the take-or-pay problem, Order 500 allowed pipelines to recover take-or-pay costs through "equitable sharing." Pipelines that willingly absorbed twenty-five to fifty percent of their costs could require sales customers to match that amount through a fixed charge. Pipelines could recover any balance through commodity rates or volumetric surcharges, borne by both sales and transportation customers. For an overview of these components of Order 500, see K N Energy, Inc. v. FERC, 968 F.2d 1295, 1297-98 (D.C. Cir. 1992). We sustained this approach in K N Energy, holding that even though Order 500 replaced traditional "cost causation" principles with cost spreading and value-of-service concepts, it did not violate Natural Gas Act section 4's requirement that rates be just and reasonable. Id. at 1301-02. Citing statements in AGD that "all actors in the natural gas industry" are "candidates" for absorbing take-or-pay liability, we relied on "the unusual circumstances surrounding the take-or-pay problem, and the limited nature--both in time and scope--of the Commission's departure from the cost-causation principle." Id. at 1301.

Concluding that Order 436 had been only partially successful in introducing competition into the natural gas industry, FERC issued its third major restructuring order, Order 636. Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation; and Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, Order No. 636, FERC Stats. & Regs. p 30,939, 57 Fed.

Reg. 13,267 (1992) (rehearing orders omitted). That order imposed mandatory unbundling of sales and transportation services and allowed sales customers to reduce the amount of gas they had to purchase pursuant to existing contracts. When customers took advantage of this option and purchased gas from sources other than the pipelines, the pipelines were once again left with substantial take-or-pay liabilities. Labeling the costs of reducing these liabilities gas supply realignment or GSR costs, Order 636 authorized pipelines to bill current transportation customers for one-hundred percent of their GSR costs by charging either a negotiated exit fee or reservation fee surcharge. Order 636 also authorized pipelines to recover all stranded costs in rate filings. In the natural gas industry, stranded costs represented the costs of pipeline assets (such as storage facilities) used to provide bundled sales services that were not directly assignable to transportation customers. For an overview of these components of Order 636, see United Distribution Cos. v. FERC, 88 F.3d 1105, 1125-27, 1176-78 (D.C. Cir. 1996) ("UDC").

In UDC, we affirmed FERC's determination that pipelines could recover all stranded costs through filed rates, so long as FERC "adequately balanced the interests of investors and ratepayers." Id. at 1180. Reaffirming the appropriateness of the cost spreading and value-of-service principles approved in K N Energy, we found that FERC's allocation of GSR costs to pipeline transportation customers, as opposed to the pipelines themselves, properly applied those principles. Id. at 1182. Although recognizing that GSR costs stemmed from pipeline sales customers, not transportation customers, we found that FERC appropriately imposed the costs on transportation customers because these customers benefitted from the availability of lower-priced transportation and also because FERC could not spread costs to the pre-Order 636 sales customers since those customers no longer purchased gas from the pipelines. Id. at 1185-86. We remanded for FERC to explain more fully why pipelines should not have to pay some of the costs, noting an inconsistency in the Commission's analysis: While FERC applied cost spreading principles to justify imposing costs on transportation customers, it

invoked cost causation principles in concluding that pipelines should not have to pay any of these costs. Id. at 1188-89. We explicitly stated, however, that we were not saying that "it is impossible, or even improbable, that the Commission on remand can establish a convincing rationale for exempting the pipelines." Id. at 1189.

POSCR reads this history to require FERC to order cost sharing, but it ignores Order 888's explanation of the difference between natural gas restructuring and the situation in the electricity industry. Most fundamentally, Order 888 explains, stranded cost recovery in the electricity industry conforms to cost causation principles, which normally govern the allocation of costs and require customers to pay the costs they caused. See Order 888, p 31,036 at 31,798. Cost causation principles could not be applied in natural gas restructuring, Order 888 explains, because many customers had already begun purchasing gas from other suppliers before FERC had addressed the take-or-pay problem on remand from AGD, and because the filed rate doctrine prohibits assessing charges against former customers. Id. at 31,800-01. Order 888 also explains that unlike stranded costs in the electricity industry, the take-or-pay liabilities in the gas industry were extraordinary. The billions of dollars of take-or-pay liabilities resulted not from Order 636, but from earlier regulatory policies that had encouraged pipelines to enter into long-term, fixed-price gas purchase contracts, combined with declining gas prices that made those contracts uneconomical. See Order 888-A, p 31,048 at 30,380. Under all of these circumstances, "[t]o have allocated these costs solely to any one segment of the industry would have imposed a crushing new burden on that segment." Id. at 30,380-81.

Stranded costs in the electricity industry, Order 888 explains, are quite different. Resulting directly from Order 888, they represent "ordinary costs that have always been, and are currently, included in the utility's rates for electric generation approved by the Commission." Id. at 30,382.

Moreover, wholesale customers may avoid stranded cost liability by continuing to purchase power from their historic utility, precisely what they probably would have done in the

absence of Order 888. In other words, in contrast to the natural gas industry, where customers would have faced enormous new burdens had FERC forced them to pay take-or-pay costs, customers in the electricity industry face no new burdens; instead, Order 888 requires them to pay nothing more than costs they would have had to pay in the absence of Order 888. In the electricity industry, the only effect of stranded cost recovery is delayed realization of the full benefits of a competitive market.

In light of these differences between the natural gas and electricity industries and FERC's exhaustive treatment of the natural gas restructuring in Order 888, POSCR's contention that FERC has failed "to offer a coherent rationale, rising to the level of reasoned decisionmaking" for not imposing cost sharing is wholly without merit. Equally without merit is POSCR's assertion that UDC "teaches that, where customers and utilities benefit from an open access rule/order that leads to early contract termination and where anticompetitive conduct by utilities has given rise to the need for the open access order, utilities must share transition costs." POSCR ignores three important points. First, FERC, not this court, determined that cost sharing was appropriate with respect to takeor-pay liabilities. UDC merely affirmed FERC's decision. Second, K N Energy recognized that cost sharing in the natural gas industry was a departure from the cost causation principles that normally apply, a departure justified by extraordinary circumstances in the natural gas industry. K N Energy, 968 F.2d at 1301-02. And finally, as to stranded costs that more closely resemble those at issue in this case-for example, pipeline assets that would no longer be fully employed when customers took advantage of unbundling to purchase gas from alternative suppliers--FERC ordered, and UDC affirmed, that pipelines recover one-hundred percent of those costs.

b. Conformance to cost causation principles

Having established that the natural gas cases impose no obligation on FERC to order cost sharing, we next consider POSCR's argument that the inclusion of stranded costs in

transmission rates does not conform to cost causation principles. This is so, POSCR asserts, because Order 888's stranded cost provisions require customers to pay through transmission rates for costs the utility previously incurred to provide generation services.

As an initial matter, we note that payment through transmission rates is only one of three ways that a departing customer may pay its stranded cost obligation; the customer also has the option of making a lump-sum payment or installment payments. Thus POSCR's challenge seems aimed only at the method of payment, not at the fact that payment is required. But even viewing POSCR's challenge more broadly, as a claim that stranded cost recovery no matter what the method of payment violates cost causation principles, we think it lacks merit.

We have explained the cost causation principle as follows: "Simply put, it has been traditionally required that all approved rates reflect to some degree the costs actually caused by the customer who must pay them." K N Energy, 968 F.2d at 1300. Given this definition, we are puzzled by POSCR's claim that because inclusion of stranded costs in transmission rates requires customers to pay currently for costs incurred in the past, it violates cost causation principles. To some degree, all utility rates reflect past costs; utilities typically expend funds today (for example, constructing generation facilities), fully expecting to recover those costs through future rates. In fact, current rates often include past costs that utilities deferred in order to avoid rate increases. Cost causation requires not that costs be incurred at the same time they are included in rates, but that the rates "reflect to some degree the costs actually caused by the customer who must pay them."

In fashioning Order 888's stranded cost recovery provisions, FERC went to great lengths to ensure that customers would be responsible for only those costs they caused.

[T]he Rule is consistent with the traditional cost causation principle because it recognizes the link between the incurrence of the stranded costs and the decision of a

particular generation customer to use open-access transmission on the utility's system to leave the utility's generation system and shop for power, and bases the utility's ability to recover stranded costs on its ability to demonstrate that it incurred costs with the reasonable expectation that the customer would remain on its generation system beyond the term of the contract.

Order 888-A, p 31,048 at 30,382.

We cannot see how including stranded costs in transmission rates instead of lump sum payments changes this analysis. To the extent POSCR is arguing that including in a transmission rate costs incurred to provide generation services violates cost causation principles, we reiterate that stranded costs are not costs of providing the physical transmission services but, as Order 888-A explains, they are utilities' cost of open access transmission. See Order 888-A, p 31,048 at 30,389 & n.634. More generally, given the fundamental changes wrought by Order 888 and the unprecedented opportunity for customers to purchase power from alternative suppliers, we are quite comfortable deferring to FERC's judgment that stranded cost recovery--through transmission rates or otherwise--conforms to cost causation principles. fact, FERC may have violated cost causation principles had it failed to assign stranded costs to customers who caused them.

POSCR next argues that Order 888 is unduly discriminatory because including stranded costs in transmission rates forces transmission customers who previously used a utility's generation capacity to pay higher costs than new transmission customers. Disagreeing, FERC determined that requiring customers receiving similar services to pay different rates is necessitated by Order 888's open access requirement. See Order 888-A, p 31,048 at 30,388-90. Cf. AGD, 824 F.2d at 1009 ("[T]he mere fact of a rate disparity is not enough to constitute unlawful discrimination.") (internal quotation marks omitted). Moreover, FERC concluded, the application of cost causation principles justifies this different treatment. See Order 888-A, p 31,048 at 30,379, 30,388-90. Seeing noth-

ing unreasonable (let alone arbitrary or capricious) in FERC's policy judgment, we reject POSCR's challenge.

Nor do we agree with POSCR's argument that stranded cost recovery violates the filed rate doctrine, which "forbids a regulated entity to charge rates for its services other than those properly filed with the appropriate federal regulatory authority." Western Resources, Inc. v. FERC, 72 F.3d 147, 149 (D.C. Cir. 1995). In Western Resources, we held that FERC's assignment to current customers of costs relating to take-or-pay liabilities did not violate the filed rate doctrine. Recognizing that "a central purpose of the doctrine is to enable purchasers to know in advance the consequences of the purchasing decisions they make," we determined that the doctrine was satisfied where customers received "adequate notice of a rate in advance of the service to which it relates." Id. at 149-50 (internal quotation marks omitted). Order 888's stranded cost policy satisfies this requirement because customers electing to purchase power generation from a source other than the transmitting utility from which they had purchased power in the past will be aware of the costs when making that decision.

3. FERC's Mobile-Sierra Findings

Under the Supreme Court's Mobile-Sierra doctrine, where parties have negotiated a contract that sets firm prices or dictates a specific method of computing charges and includes a clause denying either party the right to change such prices or charges unilaterally, "FERC may abrogate or modify the contract only if the public interest so requires." Texaco, Inc. v. FERC, 148 F.3d 1091, 1095 (D.C. Cir. 1998); see also FPC v. Sierra Pacific Power Co., 350 U.S. 348, 353-55 (1956); United Gas Pipe Line Co. v. Mobile Gas Serv. Corp., 350 U.S. 332, 344-45 (1956). We have recognized that "the 'public interest' that permits FERC to modify private contracts is different from and more exacting than the 'public interest' that FERC seeks to serve when it promulgates its rules." Texaco, 148 F.3d at 1097.

FERC usually makes Mobile-Sierra determinations on a case-by-case basis. A party seeking to modify a contract

containing a Mobile-Sierra clause petitions FERC. That party bears the burden of convincing FERC that the modification is in the public interest.

Order 888 departs from this normal case-by-case practice by making two generic public interest findings, one focused on utilities, the other on customers. These generic findings relieve utilities and customers of the burden of demonstrating in individual proceedings that the proposed modifications are in the public interest. As to utilities, Order 888 ruled that it was in the public interest to allow them to add stranded cost amendments to their contracts if they could demonstrate, in accordance with Order 888, that they had a reasonable expectation of continued service. See Order 888-A, p 31,048 at 30,394-95. This finding rested on two considerations: that the burden of unrecoverable stranded costs could impair utilities' access to capital markets, which could in turn precipitate the departure of other customers, thus worsening the utilities' financial condition and threatening its ability to provide reliable service; and that allowing customers to leave a utility without paying their share of costs would shift those costs to other customers who lack alternative power sources. See Order 888, p 31,036 at 31,811. For its second generic finding, FERC concluded that it was in the public interest to allow customers to modify their wholesale requirements contracts in any way upon a showing that the terms are no longer just and reasonable. See Order 888-A, p 31,048 at 30,189. Observing that the contracts in question "were entered into during an era in which transmission providers exercised monopoly control over access to their transmission facilities," FERC based this finding on the unequal bargaining power between utilities and customers. Id. at 30,193. Because [m] any of these contracts were the result of uneven bargaining power between customers and monopolist transmission providers," FERC reasoned, "the unprecedented competitive changes that have occurred (and are continuing to occur) in the industry may render their contracts to be no longer in the public interest or just and reasonable." Id.

Challenging the first finding, POSCR argues that FERC lacks authority to make a generic public interest finding that

allows for contract modification in an entire class of cases. POSCR insists that FERC can only proceed on a case-by-case basis, determining in each case whether a particular contract modification is in the public interest. Even if FERC has authority to make generic findings, POSCR goes on to argue, FERC's Order 888 finding is unsupported by substantial evidence. The investor owned utilities ("IOUs") challenge the second finding, arguing that allowing customers to seek modification of all contract terms, while limiting utilities to stranded cost provisions, fails adequately to balance competing interests.

a. FERC's authority to make a generic public interest finding

POSCR correctly observes that FERC has pointed to no case in which a court affirmed a generic Mobile-Sierra finding. At the same time, POSCR has cited no case prohibiting FERC from making a generic finding, nor have we found one. In the absence of definitive authority in either direction, and given the unique circumstances of this case and our traditional deference to FERC's expertise, we find no fault with FERC's generic determination.

The Mobile-Sierra doctrine "represents the Supreme Court's attempt to strike a balance between private contractual rights and the regulatory power to modify contracts when necessary to protect the public interest." Northeast Utilities Serv. Co. v. FERC, 55 F.3d 686, 689 (1st Cir. 1995). In Mobile, the Supreme Court recognized that intervening circumstances may create a situation in which contractual terms and conditions that were just and reasonable at the time the contract was executed are no longer just and reasonable. 350 U.S. at 344-45. But concluding that a utility is not typically "entitled to be relieved of its improvident bargain," the Sierra Court required that FERC's predecessor, the Federal Power Commission, show more than that the contract was unjust and unreasonable -- the Commission had to find that contract modification was in the public interest. 350 U.S. at 355.

In most cases, intervening circumstances are unique to the relationship between contracting parties. See, e.g., Northeast

Utilities, 55 F.3d 686 (affirming FERC's modification to the rate schedule of a contract as a condition for approval of a merger between two parties to the contract). But where intervening circumstances -- in this instance, FERC-mandated open access transmission -- affect an entire class of contracts in an identical manner, we find nothing in the Mobile-Sierra doctrine to prohibit FERC from responding with a public interest finding applicable to all contracts of that class. Moreover, in providing for stranded cost recovery, FERC has not relieved utilities of "improvident bargains," the concern of the Sierra Court; rather, it has recognized that open access affects all utilities in the same manner, namely, leaving them vulnerable to potentially unrecoverable stranded costs. fact, to deny FERC authority to make generic findings in such a case would simply impose on it and the parties the repetitive burden of proving the public interest in each and every case.

In sustaining FERC's generic finding, we are influenced by the fact that before recovering stranded costs, a utility must prove that it had a reasonable expectation of continued service to a particular customer. As the IOUs invervening on behalf of FERC explain, the need to make this showing adds a particularized element to FERC's generic public interest finding. Viewed this way, Order 888's generic finding is more precisely stated as follows: It is in the public interest to allow utilities to recover stranded costs if they can prove that they had a reasonable expectation of continued service to particular customers. If a utility can demonstrate that it had a reasonable expectation of continued service to a particular customer, and incurred costs based on that expectation, then it would be against the public interest to require other customers or shareholders to bear those costs. As Order 888 explains, "the case-by-case findings that some commenters seek will, in effect, be made when the Commission determines whether to approve a proposed stranded cost amendment to a particular contract." Order 888, p 31,036 at 31,813.

We stress that generic Mobile-Sierra findings are appropriate only in rare circumstances. Order 888 is just such a circumstance. It fundamentally changes the regulatory envi-

ronment in which utilities operate, introducing meaningful competition into an industry that since its inception has been highly regulated and affecting all utilities in a similar way.

b. FERC's stranded cost public interest finding

Having concluded that the Mobile-Sierra doctrine permits a generic finding in this case, we turn to POSCR's claim that the finding was unsupported by substantial evidence. POSCR faults FERC for failing to adduce evidence to support its conclusion that denying stranded cost recovery would put particular utilities in financial peril. POSCR also thinks that the impact on customers of failing to provide for stranded cost recovery is insufficient to support a public interest finding.

With respect to POSCR's first point, it is certainly true that Sierra identified impairment of "the financial ability of the public utility to continue its service" as one factor supporting a public interest finding. Sierra, 350 U.S. at 355. Relying on this, POSCR challenges FERC's public interest finding on the ground that the record contains no individual assessments of the financial condition of public utilities.

Although public interest findings made on a case-by-case basis necessarily evaluate the harm to the particular utility seeking modification, that is not true where, as here, FERC implements a generic change in the industry. Just as that change can support a generic public interest finding, that generic finding can be supported by generic industry-wide evidence. FERC has produced such evidence. The record contains estimates of stranded costs amounting to \$200 billion or more. See Stranded Cost NOPR, p 32,507 at 32,866. It also includes comments from representatives of the financial community stating that "the prospect of not recovering stranded costs could erode a utility's ability to attract capital."

POSCR points out that eighty-five to ninety percent of the estimated \$200 billion of stranded costs relates to retail sales, not wholesale sales. True enough, but we find no basis for questioning FERC's conclusion that unrecovered stranded

costs of even ten percent of \$200 billion--the low end of the wholesale stranded cost estimate--could have serious consequences for utilities. See Order 888, p 31,036 at 31,790. In any event, if POSCR turns out to be correct about the absence of a wholesale stranded cost problem, few utilities will avail themselves of Order 888's stranded cost recovery provisions.

POSCR's second argument focuses on FERC's finding that "if some customers are permitted to leave their suppliers without paying for stranded costs, this may cause an excessive burden on the remaining customers who, for whatever reason, cannot leave and therefore may have to bear those Order 888, p 31,036 at 31,811. POSCR does not agree with FERC that the failure to recover stranded costs will create an "undue burden" on remaining customers. But disagreeing with FERC is not enough. To prevail in this court, POSCR must demonstrate that FERC's prediction that failure to recover stranded costs will create an undue burden on remaining customers is unsupported by substantial evidence, see 16 U.S.C. s 8251(b), which is another way of saying it is arbitrary and capricious. See Michigan Consolidated Gas Co. v. FERC, 883 F.2d 117, 124 (D.C. Cir. 1989) ("[M]aking ... predictions is clearly within the Commission's expertise and will be upheld if rationally based on record evidence.") (internal quotation marks omitted). This POSCR has failed to do.

c. FERC's public interest finding regarding customers

The IOUs mount two challenges to FERC's second public interest finding--that it was in the public interest to allow customers to seek modification of their wholesale requirements contracts. Unlike POSCR, the IOUs make no claim that the finding lacks substantial evidence; rather, they contend that FERC's decision to allow customers to seek modification of all contract terms, while limiting utilities to adding stranded cost provisions, fails to balance FERC's competing concerns: respecting existing contractual commitments and accelerating the transition to competition. They also complain that FERC has failed adequately to explain

why affording customers this broad ability to modify their contracts is in the public interest.

FERC gave two justifications for affording customers a broader opportunity than utilities to modify their contracts, both of which seem perfectly rational to us. First, Order 888-A explains, "these contracts were entered into during an era in which transmission providers exercised monopoly control over access to their transmission facilities." Order 888-A, p 31,048 at 30,193. Also, the "unprecedented competitive changes.... may affect whether such contracts continue to be just and reasonable or not unduly discriminatory both as to the direct customers of the contracts, as well as to indirect, third-party consumers.... Id. at 30,193-94. fact, Order 888 rests on the very premise that by denying competitors access to their transmission lines, utilities engaged in undue discrimination. Confined to purchasing power from their local utilities, customers suffered from this lack of access. In the natural gas restructuring, we affirmed FERC's decision to allow customers to seek to modify their sales contracts because those contracts "necessarily reflect the pipelines' monopoly power." AGD, 824 F.2d at 1017. The same reasons call for affirming FERC's decision here. In addition, as FERC has explained, the harm to third parties (i.e., customers of the wholesale requirements customers) that may result from adherence to uneconomical contracts further justifies its conclusion. See Order 888-A, p 31,048 at 30,194. Remedying potential unfairness to utilities by allowing them to seek stranded cost recovery if a customer shortens the term of a contract, FERC struck a balance between customers and utilities that can hardly be characterized as arbitrary or capricious.

4. Availability of Stranded Cost Recovery to Nonjurisdictional Utilities and G&T Cooperatives

Section 201 of the FPA gives FERC jurisdiction over "public utilities" but not over federal and state utilities. 16 U.S.C. s 824. Although FERC required utilities not subject to its jurisdiction ("nonjurisdictional utilities") to provide reciprocal open access transmission when they use a jurisdic-

tional utility's open access tariff, it declined to provide a mechanism for them to recover stranded costs. Explaining that it promulgated its reciprocity provision pursuant to fairness concerns, not statutory authority, FERC reasoned that it lacked jurisdiction to provide stranded cost recovery for nonjurisdictional utilities. See Order 888-A, p 31,048 at 30,364. FERC recommended that these utilities include stranded cost provisions in their open access tariffs; those tariffs would be reviewed not by FERC but by the appropriate regulatory authority. See id.

Dairyland petitioners contend that FERC acted arbitrarily and capriciously in denying nonjurisdictional utilities stranded cost recovery, arguing that the same "fairness" concerns invoked by FERC to require reciprocal open access transmission require the award of stranded costs. To be sure, FERC may have had authority to include stranded cost recovery as a provision of Dairyland's open access tariff. But Dairyland has offered no reason for thinking that FERC's refusal to do so was arbitrary and capricious. Given the limited scope of FERC's stranded cost provisions, its lack of jurisdiction over entities like Dairyland, and the ability of nonjurisdictional utilities to include stranded cost provisions in their open access tariffs, we see no reason to question FERC's judgment on this issue.

The same is true with respect to the transmission-dependent utilities ("TDUs"). Like the Dairyland petitioners, they claim that FERC acted arbitrarily and capriciously by failing to provide a mechanism for them to recover stranded costs. Owning few or no transmission facilities, TDUs serve their loads using other utilities' transmission systems. Not only are TDUs nonjurisdictional utilities, but, as Order 888-A explains, open access does not cause their costs to become stranded—their customers have always had an option to use other utilities' transmission services to purchase power. See Order 888-A, p 31,048 at 30,365.

Dairyland also contends that FERC acted arbitrarily and capriciously when it declined to treat a generation and transmission ("G&T") cooperative and its member distribution

cooperatives as a single economic unit for stranded cost purposes. G&T cooperatives provide bundled wholesale power to their member distribution cooperatives, who in turn sell the power to the members' retail customers. Observing that cooperatives, unlike traditional utilities, are not vertically integrated but instead function as single economic units, Dairyland claims that G&T cooperatives have reasonable expectations of continued service to retail customers of their member cooperatives that differ substantially from the expectations public utilities have with respect to retail customers of their wholesale customers. This difference, Dairyland argues, requires FERC to allow G&T cooperatives to recover stranded costs from their member cooperatives' customers.

Rejecting Dairyland's petition for rehearing on this point, FERC noted that treating a G&T cooperative and its members as a single economic unit for purposes of stranded cost recovery would conflict with its treatment of these same cooperatives as distinct entities in its reciprocity provisions. Order 888-A, p 31,048 at 30,366. There, FERC agreed with Dairyland's proposal that if a G&T cooperative seeks open access transmission from a public utility, "then only the G&T cooperative, and not its member distribution cooperatives, would be required to offer [reciprocal] transmission service." Order 888, p 31,036 at 31,763. Moreover, FERC reasoned, recovering from a retail customer of a member cooperative is, in effect, recovering from an indirect customer, a situation that FERC declined to include in its stranded cost rule. See Order 888-A, p 31,048 at 30,366.

It is true that FERC could have treated G&T cooperatives and their members as single economic units for stranded cost purposes. But FERC's explanation of why it chose not to do so, particularly the fact that G&T cooperatives and their members were treated as distinct entities for reciprocity purposes, is entirely reasonable.

5. Challenges to Technical Aspects of Order 888's Stranded Cost Recovery Provisions

Several petitioners mount challenges to various technical aspects of the stranded cost recovery provisions. Before

addressing these challenges, we emphasize the very limited scope of our review. For us to undo what FERC has done, petitioners must persuade us that FERC's actions were arbitrary or capricious. "Highly deferential," the arbitrary and capricious standard "presumes the validity of agency action." National Mining Ass'n v. Mine Safety and Health Admin., 116 F.3d 520, 536 (1997). Where, as here, the issue before us "requires a high level of technical expertise, we must defer to the informed discretion of the responsible federal agencies." Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 377 (1989) (internal quotation marks omitted). It is not enough for petitioners to convince us of the reasonableness of their views, see UDC, 88 F.3d at 1169 ("The existence of a second reasonable course of action does not invalidate an agency's determination."); those arguments should be presented to FERC, whose commissioners are appointed by the President and confirmed by the Senate with the expectation that they, not Article III courts, will make policy judgments.

To prevail in this court, petitioners must demonstrate that FERC's policy judgments are arbitrary or capricious, a heavy burden indeed. See National Treasury Employees Union v. Hefler, 53 F.3d 1289, 1292 (D.C. Cir. 1995) ("The 'scope of review under the "arbitrary and capricious" standard is narrow and a court is not to substitute its judgment for that of the agency.' ") (quoting Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)). With this very deferential scope of review in mind, we turn to petitioners' arguments.

a. POSCR's challenges to the stranded cost formula

Reasoning that it would be burdensome to identify each and every asset that would become underutilized as a result of Order 888, FERC adopted a "revenues lost" formula to determine a departing customer's stranded cost obligation. Order 888, p 31,036 at 31,839. For each year a utility can prove that it had a reasonable expectation of continued service to a particular customer, the formula calculates the customer's stranded cost obligation by subtracting the com-

petitive market value of the power the customer would have purchased from the utility (as estimated by the utility) from the amount the customer would have paid had it remained a generation customer of the utility (based on FERC-approved rates that the customer paid the prior three years). Id. at 31,839-40.

POSCR claims that this formula gives utilities no incentive to mitigate their stranded costs. Not so. The formula automatically provides such an incentive by subtracting from utilities' recovery the market price of the power--utilities that fail to sell the power at market prices will not recover their full costs. POSCR also claims that the formula fails accurately to measure stranded costs because it is based on an estimate of those costs at one point in time. Responding, FERC explained why it rejected a "true-up" provision that would have made adjustments to the amount the customer owed to reflect market conditions over the reasonable expectation period. According to FERC, such an approach would have created enormous uncertainty, outweighing any potential increase in accuracy. See Order 888-A, p 31,048 at 30,427-28. POSCR has offered no basis for us to question this reasoning.

POSCR's claim that the formula gives utilities an incentive to minimize their estimate of the market value of the power the customer would have purchased is similarly groundless. To avoid precisely this result, Order 888 gives customers an option to either market or broker the capacity and associated energy they would have purchased from their historic utility, effectively reducing their stranded cost obligations by the difference between the actual market value of the power and the utility's estimate of the market value. See Order 888, p 31,036 at 31,844. Order 888 also gives customers an option to substitute the price of power under the customer's contract with a new supplier for the utility's estimate of the market value. See id.

One final point. Throughout its brief and at oral argument, POSCR consistently referred to stranded costs as "imprudently incurred costs." Although it never developed this

argument, we think it worth noting that all costs included in customers' stranded cost obligations are based on FERC-approved rates and were included in utility rate bases as assignable to particular customers. To us, this means that these costs are legitimate, prudent, and verifiable.

b. Inclusion of known and measurable costs

The IOUs take issue with Order 888's stranded cost recovery formula because the estimate of the price the customer would have paid for the power is based on rates for the prior three years; according to the IOUs, this approach fails to consider known and measurable costs resulting from regulatory mandates that may have been deferred pursuant to filed rate schedules and FERC-approved settlements. The costs they cite include deferred costs of generation that have already been approved for inclusion in the rate base, costs relating to approved qualifying facility contracts, and government-imposed costs such as deferred taxes and nuclear decommissioning.

Although it is true that the revenue calculation measures only current rates and not deferred costs, Order 888 allows customers and utilities to file for a change in the rates before the customer's requirements contract terminates; in such cases, FERC will calculate the customer's stranded cost obligation based on those new rates. See Order 888-A, p 31,048 at 30,427. While seeking to avoid detailed listings of specific costs that may become stranded, FERC has adequately preserved utilities' ability to include known, measurable costs in revenue estimates through a ratemaking proceeding.

c. Treatment of energy costs in the market option

The IOUs challenge FERC's treatment of energy costs in the market option. To mitigate utilities' incentives to minimize their estimates of the market value of the power (the competitive market value estimate or "CMVE"), Order 888 affords customers an option to buy the power stranded by their departure from the utility and resell it. Order 888, p 31,036 at 31,844. Customers would purchase generation

capacity at the utility's estimated market value of the capacity and associated energy at average system variable cost. Id. at 31,845. Thus if a customer believes that a utility is underestimating the price at which it could sell the power, the customer can buy the power and then resell it. While customers exercising this option would still have to pay their stranded cost obligation as calculated under the formula, they would effectively offset the obligation by keeping the profit on the resale of the power. Id. at 31,845 n.879.

The IOUs contend that allowing customers to pay average variable cost for the associated energy is inconsistent with Order 888's definition of the CMVE, which equals the market value of both the generation capacity and associated energy. See id. at 31,839 (defining CMVE as "the utility's estimate of the average annual revenues ... that it can receive by selling the released capacity and associated energy, based on a market analysis performed by the utility"). Customers could receive a windfall, the IOUs claim, by exercising the market option—although they will pay average variable cost for the associated energy, they will be able to resell it at the presumably higher market price. At the same time, utilities will be unable to recover the full market value of the power because they will be forced to sell the associated energy at cost.

Responding to this argument in Order 888-A, FERC offered two justifications for allowing customers to purchase the associated energy at average variable cost. First, because the capacity being marketed would not generally be associated with a single asset, customers exercising this option are purchasing a "slice of the system" and thus should pay average variable cost. Second, customers should be able to purchase energy at the price they currently pay, typically average variable cost. See Order 888-A, p 31,048 at 30,433. But neither explanation responds to the IOUs' argument that defining CMVE as the market price of both the capacity and associated energy is inconsistent with allowing customers exercising the market option to purchase associated energy at average variable cost. In its brief in this court, FERC continues to misapprehend the IOUs' argument, largely reit-

erating the same arguments and failing to address the inconsistency.

The market option's stated intention is to reduce a utility's incentive to understate the CMVE. See Order 888, p 31,036 at 31,842. If it did understate the CMVE, then customers could buy the power from the utility and resell it, keeping the difference. But FERC's policy of allowing customers to purchase the associated energy at cost gives customers an incentive to exercise the market option even when a utility has appropriately estimated CMVE because they can buy the energy at cost and resell it at the presumably higher market price. FERC's failure to explain whether it intended this result and if so, the justification for permitting customers to receive a windfall while undercompensating utilities constitutes a failure of reasoned decisionmaking. See AGD, 824 F.2d at 1030 ("We do not require that FERC reach any particular conclusion; we merely mandate that it reach its conclusion by reasoned decisionmaking."). We therefore vacate this portion of the orders and remand the issue to FERC for further consideration.

d. Rescission of notice of termination provision

Until FERC issued Orders 888 and 889, it had required parties to power sales contracts to notify it sixty days prior to cancellation of a contract or termination of a contract by its own terms. See 18 C.F.R. s 35.15 (repealed by Order 888). Orders 888 and 889 eliminate the requirement that parties notify FERC in advance when a contract terminates by its own terms, but only with respect to contracts executed after July 9, 1996; in other cases of contract cancellation or termination, parties must still notify FERC in advance. See 18 C.F.R. s 35.15 (1999). TDU petitioners claim that in rescinding the notice requirement, FERC ignored the fact that utilities still have substantial market power. That some utilities retain market power in generation, however, does not undermine Orders 888 and 889. Through these orders, FERC sought to move the electricity industry toward competition; by providing an open access mechanism through which buyers may purchase power from suppliers other than transmitting utilities, FERC substantially reduced utilities' market power. Eliminating the notice requirement furthered that policy. Moreover, customers who believe termination of their contracts is unjust can seek relief from FERC pursuant to section 206 of the FPA. See Order 888-A, p 31,048 at 30,393.

e. Provision for benefits lost

The TDU petitioners claim that FERC acted arbitrarily and capriciously by failing to provide a mechanism for customers purchasing power at below-market rates to preserve those rates at the termination of their contract with their historic utility. Just as utilities may have expectations of continued service to particular customers, the TDU petitioners contend, customers may have reasonable expectations of continuing to receive wholesale requirements service from their historic utility at cost-based rates. Order 888-A says that the Commission does "not have a sufficient basis on which to make generic findings that customers under such contracts may be entitled to extend a contract at the existing rate." Order 888-A, p 31,048 at 30,393 (emphasis removed). Moreover, the order explains, "the consequences of customers' expectations as a general matter would not have the potential to shift significant costs to other customers," whereas utilities' failure to recover stranded costs could potentially shift the costs to other customers. Id.

We think that FERC has adequately explained why it chose not to provide for benefits-lost recovery in Order 888. Most important, FERC has not foreclosed customers in this situation from seeking relief: As Order 888-A explains, a customer may "exercise its procedural rights under section 206 to show that the contract should be extended at the existing contract rate, or [] make such a showing in the context of a utility's proposed termination of a contract pursuant to the section 35.15 notice of termination (approval) requirement." Id. (footnote omitted). Given that agencies "enjoy[] broad discretion in determining how best to handle related, yet discrete, issues in terms of procedures ... and priorities," we think FERC's refusal to promulgate a generic rule on this issue was entirely reasonable. Mobil Oil Explo-

ration & Producing Southeast, Inc. v. United Distrib. Cos., 498 U.S. 211, 230 (1990).

B. Retail Stranded Costs

Recognizing state agency authority to address stranded costs that relate to retail power sales, Order 888 limits FERC's role as a forum for the recovery of these costs to two situations: when customers take advantage of state-ordered wheeling to reach new power suppliers and when former retail customers become wholesale customers through what is known as municipalization or municipal annexation. See Order 888-A, p 31,048 at 30,402, 30,410. In the former scenario, FERC will consider proposals for the recovery of stranded costs only when the appropriate state regulatory commission lacks authority to do so; in the latter situation, FERC will serve as the primary forum for resolution of stranded cost claims.

1. Stranded Costs Arising from Retail Wheeling

Stranded costs may result from state unbundling of retail sales, where retail customers take advantage of state-ordered retail wheeling to reach new generation suppliers. See Order 888, p 31,036 at 31,819. Observing that both FERC and the states have authority to address these stranded costs, Order 888 explains that:

[B]ecause it is a state decision to permit or require the retail wheeling that causes retail stranded costs to occur, we will leave it to state regulatory authorities to deal with any stranded costs occasioned by retail wheeling. The only circumstance in which we will entertain requests to recover stranded costs caused by retail wheeling is when the state regulatory authority does not have authority under state law to address stranded costs when the retail wheeling is required.

Order 888, p 31,036 at 31,824-25 (footnote omitted). FERC will provide for recovery of those stranded costs through the transmission rate the former supplying utility charges the departing customer. Order 888-A, p 31,048 at 30,410. (As discussed in Section III supra, FERC has jurisdiction over

the transmission component of unbundled retail sales.) In evaluating claims for stranded cost recovery, FERC will use the same standards as it applies with respect to wholesale stranded costs (i.e., it will require utilities to demonstrate a reasonable expectation of continued service). See Order 888, p 31,036 at 31,819 n.722.

Two sets of petitioners challenge FERC's retail stranded cost recovery provisions from opposite sides. The States and POSCR contend that FERC exceeded its jurisdiction by asserting rate authority over retail stranded costs. The IOUs argue that FERC abdicated its statutory authority by failing to agree to consider all proposals for recovery of stranded costs that arise from retail wheeling. Because we think FERC has appropriately exercised its jurisdiction, we reject both claims.

a. FERC's jurisdiction over retail stranded costs

The States' and POSCR's arguments boil down to the following: Because retail stranded costs relate primarily to facilities used for retail generation, and because section 201(b) of the FPA explicitly excludes these facilities from FERC's jurisdiction, FERC may not provide for recovery of these costs in FERC-jurisdictional rates. Unbundling electricity sales, they argue, cannot alter the jurisdictional status of these costs.

As an initial matter, we agree with FERC that petitioners confuse costs and rates. Rates are jurisdictional; costs are not. As Order 888-A explains:

[T]here are rarely separate retail and wholesale generating facilities. Retail customers and wholesale requirements customers get energy from the same facilities, each buying a "slice of the system." Typically all generating assets go into both the retail and the wholesale rate bases for determining retail and wholesale rates. Rates are determined by allocating the total generating costs among customer classes. The parties confuse the issue before us to the extent they suggest that state commissions, not this Commission, have "jurisdiction" over cer-

tain "costs." Neither the state commissions nor this Commission has exclusive jurisdiction over "costs." Each regulatory authority has jurisdiction to determine "rates" for services subject to its jurisdiction and, in determining rates, may take into account all of the costs incurred by the utility.

Order 888-A, p 31,048 at 30,414. In other words, as FERC explained in its brief, "regulatory authorities do not carve out so-called 'wholesale costs' that only FERC can take into account in determining rates subject to its jurisdiction or so-called 'retail costs' that only a state commission can take into account in determining rates subject to state jurisdiction." Instead, "[u]nder historical cost-of-service ratemaking, each regulatory authority, in exercising its respective ratemaking jurisdiction, reviews the total costs incurred by a utility to provide service and makes its separate and independent determination of what costs may be recovered through rates within its jurisdiction." Order 888-A, p 31,048 at 30,414.

Thus, while petitioners correctly point out that section 201(b) of the FPA denies FERC jurisdiction over "facilities used for the generation of electric energy," that provision does not necessarily prevent FERC from including costs relating to generating facilities in transmission rates, over which FERC indisputably has jurisdiction. 16 U.S.C. s 824(b). This is so because this part of section 201(b) is modified by the phrase "except as specifically provided in this subchapter and subchapter III of this chapter." Id. Given that section 201(a) grants FERC jurisdiction over "the transmission of electric energy in interstate commerce" and, therefore, over transmission rates, 16 U.S.C. s 824(a), FERC may exercise jurisdiction over generation facilities to the extent necessary to regulate interstate transmission.

This is exactly the construction that we gave section 201(b) in Mississippi Industries v. FERC, 808 F.2d 1525, 1543-45 (D.C. Cir. 1987) (subsequent history omitted). There, petitioners challenged FERC's authority to reallocate costs relating to generation facilities among utilities that were parties to a power sales agreement. Justifying its authority to reallo-

cate such costs, FERC relied on its "undisputed jurisdiction over interstate sales of electric energy at wholesale." Id. at 1543. We agreed: "[A]lthough allocating cost does, to some extent, result in the 'regulation of matters relating to generation,' such regulation is valid under the FPA when it is the byproduct of a legitimate exercise of FERC's power to regulate wholesale rates." Id. In reaching this conclusion, we rejected petitioners' argument that "the statutory prohibition of federal regulation of [generation] facilities in section 201(b) becomes meaningless if FERC is permitted to allocate the costs of a plant," given FERC's undisputed responsibility to regulate the wholesale sale of power. Id. at 1543-44. Under Mississippi Industries, then, FERC may regulate costs relating to generation facilities if such regulation "is the byproduct of a legitimate exercise of FERC's power to" regulate interstate transmission. Id. at 1543. Because FERC indisputably has jurisdiction over transmission rates, Mississippi Industries also disposes of petitioners' argument that FERC's retail stranded cost recovery provisions run afoul of section 201(a) of the FPA, which provides that "Federal regulation [shall] extend only to those matters which are not subject to regulation by the States." 16 U.S.C. s 824(a).

Attempting to distinguish Mississippi Industries, petitioners point out that the case "involved authority to allocate generation costs to a wholesale sales rate (which may, of course, include generation costs)." True, but Mississippi Industries provides clear authority for the proposition that there is no per se jurisdictional bar to FERC's including generation costs in jurisdictional rates, whether wholesale sales rates or transmission rates. Thus narrowed, the question before us is this: Is inclusion of stranded costs relating to generation facilities in transmission rates the byproduct of a legitimate exercise of FERC's authority over transmission rates? In most cases the answer would be no, but given the highly unusual circumstances of this case, we think the answer is yes. Just as FERC may include generation-related wholesale stranded costs in transmission rates (see Section V.A.1.b), it may include generation-related retail stranded costs in transmission rates. That retail stranded costs were

originally reflected in state-jurisdictional retail sales rates does not change the analysis, for in both cases the stranded costs can be viewed as "costs" of providing transmission services: "While such costs are not a cost of operating the physical transmission system, nevertheless, they are an economic cost incurred as a result of being required to provide retail transmission." Order 888-A, p 31,048 at 30,414 n.708. While we agree that generation-related retail costs are not typically "costs" relating to transmission services, the fundamental changes wrought by state-ordered retail wheeling, as well as the narrow circumstances in which FERC will consider stranded cost recovery claims, justify the conclusion that these costs are costs of providing transmission service.

Petitioners claim that by agreeing to consider retail stranded cost recovery claims, FERC has unduly interfered with state legislative processes and decisions. We disagree. FERC has limited its "interference" to instances where state commissions have no authority even to address stranded cost recovery claims. Describing its role as limited to "fill[ing] any regulatory gap," FERC made it clear that it will deny consideration to any utility seeking stranded cost recovery "if a state regulatory authority with authority to address retail wheeling stranded costs has in fact addressed such costs, regardless of whether the state regulatory authority has allowed full recovery, partial recovery, or no recovery." Order 888-A, p 31,048 at 30,415. Under these circumstances, it can hardly be said that FERC has usurped state authority.

b. FERC's refusal to assert jurisdiction over all retail stranded costs

Contending that FERC did not go far enough, the IOUs challenge the agency's refusal to consider claims for stranded costs resulting from state-ordered retail wheeling unless the relevant state regulatory commission lacks authority to address such claims. They claim that FERC should have agreed to consider proposals for retail stranded cost recovery whether or not the state commission had authority to address the claim, and even whether or not a state commission with such authority had already addressed the claim. In support

of their position, the IOUs advance three related arguments. They allege first that by concluding that it had jurisdiction over retail stranded costs but declining to exercise it, FERC abdicated its legal authority. Second, they say, FERC violated its statutory obligation to ensure just and reasonable rates. And finally, they contend that FERC erred in concluding that stranded costs resulting from retail wheeling lack a direct nexus to the open access transmission ordered in Order 888.

With respect to their first argument, the IOUs claim that once FERC determined that it had jurisdiction over retail stranded costs, the agency had to exercise that jurisdiction. In making this argument, the IOUs make the same mistake POSCR made: They confuse FERC jurisdiction over costs with its jurisdiction over rates. FERC has not "concluded that it shares jurisdiction over retail stranded costs with the states," as the IOUs assert. As we explained above, "costs" are not jurisdictional. The FPA speaks not in terms of "costs," but in terms of "rates," requiring FERC to ensure that rates are just, reasonable, and not unduly discriminatory. FERC indisputably has jurisdiction over interstate transmission rates. In essence, then, the IOUs claim that FERC has no discretion to leave retail stranded cost recovery to state authorities.

We review claims that an agency lacks discretion to follow (or decline to follow) a certain course of action by examining the agency's governing statute as well as its own regulations. See, e.g., National Wildlife Federation v. Browner, 127 F.3d 1126, 1130 (D.C. Cir. 1997) (concluding that agency regulations do not require EPA to review and approve or disapprove a state's decision to maintain existing water quality standards); NRDC v. EPA, 25 F.3d 1063, 1069-70 (D.C. Cir. 1994) (holding that neither the governing statute nor relevant regulations impose a mandatory duty on EPA to list all wastes that exhibit a hazardous characteristic; statute gives EPA "substantial room to exercise its expertise in determining the appropriate grounds for listing"). The IOUs have failed to point to any statutory provision that robs FERC of discretion to decide, as a matter of policy, that state regulato-

ry commissions should serve as the primary forum for retail stranded cost recovery. Our own examination of the FPA reveals no such provision either. Sections of the statute giving FERC jurisdiction over transmission in interstate commerce, 16 U.S.C. s 824(a), and requiring FERC to ensure that rates are just and reasonable, 16 U.S.C. s 824d(a), do not alone create a mandatory duty to consider proposals for retail stranded cost recovery.

The two Supreme Court cases the IOUs rely on provide no support for their position, for in both cases the agencies, unlike FERC in this case, failed to comply with a specific statutory mandate. In MCI v. AT&T, 512 U.S. 218 (1994), the Supreme Court held that the FCC could not exempt certain communication common carriers from filing a tariff; the statute specified that all carriers must file tariffs. larly, in FPC v. Texaco, Inc., 417 U.S. 380 (1974), the Supreme Court determined that the FPC could not exempt certain producers from the statute's requirement that rates be just and reasonable. Under these cases, FERC would abdicate its statutory obligations if it, for example, exempted certain utilities from the requirement that rates be just and reasonable (as in Texaco), or if it refused to review transmission rate filings altogether. These cases do not hold that in carrying out its statutory obligations, FERC has no discretion to determine as a matter of policy that states are better positioned to address costs originally included in retail rate bases. What the IOUs suggest--that because FERC has authority to address retail stranded costs through transmission rates, it must exercise that authority--is simply not the law.

As an alternative to their legal argument, the IOUs claim that FERC acted arbitrarily and capriciously in determining that just and reasonable transmission rates include retail stranded cost recovery in some circumstances but not in others. Their argument goes like this: Section 201(b)(1) of the FPA gives FERC exclusive jurisdiction over transmission of electric energy in interstate commerce. Under section 205, FERC must set just and reasonable rates. In addition, sections 205 and 206 prohibit undue discrimination. Thus,

the IOUs argue, "[b]y approving different transmission rates, some including stranded cost recovery (e.g., municipalization), and others without (e.g., retail wheeling or bypass), FERC is sanctioning arbitrary and capricious differences in violation of the FPA."

In making this argument, the IOUs ignore the wide discretion the FPA affords FERC to determine what constitute "just and reasonable rates" and "undue discrimination," as well as the unusual circumstances created by an industry change as fundamental as Order 888's open access requirement. Just because some transmission rates include retail stranded costs while others do not does not alone make Order 888 arbitrary and capricious; rather, petitioners must show that there is no reason for the difference. Cf. AGD, 824 F.2d at 1009 ("[T]he mere fact of a rate disparity is not enough to constitute unlawful discrimination.") (internal quotation marks omitted). We think FERC has provided a convincing explanation for the difference. "Recovery of this type of cost through a transmission rate is obviously not the norm," explains Order 888-A, "but is necessitated by the need to deal with the transition costs associated with this Rule." Order 888-A, p 31,048 at 30,418. Only in situations where state regulatory commissions lack authority to award stranded costs will FERC include these costs in transmission rates. Otherwise, customers would be able to avoid their stranded cost obligations, leaving utility shareholders or remaining customers to bear the costs.

The IOUs' reliance on the natural gas restructuring cases is misplaced. Setting aside the extraordinary nature of take-or-pay liabilities as compared to the stranded costs at issue here, AGD required only that FERC address the take-or-pay liabilities that the pipelines had incurred. See AGD, 824 F.2d at 1030 ("We do not require that FERC reach any particular conclusion; we merely mandate that it reach its conclusion by reasoned decisionmaking."). That is exactly what Order 888 does with respect to stranded costs. While FERC has not agreed to serve as the forum for recovery of these costs in all situations, neither the FPA nor the natural gas cases requires it to do so. By ensuring that utilities have a forum in which

to bring claims for retail stranded cost recovery, FERC has done just what AGD requires.

Nor do we find merit in the IOUs' argument that FERC erred in concluding that stranded costs resulting from retail wheeling lack a direct nexus to the open access transmission mandated by Order 888. FERC's decision that state regulatory commissions should address retail stranded costs rested on its conclusion that state-ordered wheeling, not FERCmandated open access transmission, causes those costs to become stranded. See Order 888-A, p 31,048 at 30,410. Recognizing a "limited" nexus between retail stranded costs and FERC-mandated open access stemming from FERC's jurisdiction over transmission rates and the resulting authority to award stranded costs, FERC nonetheless found no causal nexus between stranded costs and FERC-ordered transmission. Id. at 30,419. The lack of a direct causal nexus differentiates retail stranded costs from retail-turnedwholesale stranded costs (see infra Section V.B.2).

Taking issue with this reasoning, the IOUs contend that FERC ignored "the central role played by the federal government" in shaping the electric energy industry. Because retail wheeling, according to the IOUs, is "a direct result of a federally created system of increased competition," FERC must take responsibility for all retail stranded costs.

Nowhere does FERC contest the nexus between state-ordered wheeling and Order 888's open access requirement. But the existence of a nexus does not require FERC to address retail stranded costs in light of the fact that in most instances state regulatory commissions will have authority to do so. Indeed, because the costs were originally included in retail rate bases, state agencies are better positioned to consider them. Given that it is state-ordered wheeling that most directly causes retail costs to become stranded, we find no reason to disturb FERC's judgment.

 Stranded Costs Relating to Retail-Turned-Wholesale Customers

FERC concluded that open access transmission may encourage what is known as "municipalization," where a town

condemns a utility's distribution plant, becomes a wholesale customer of the utility, and utilizes open access transmission to purchase power on the competitive market. Concluding that costs incurred to serve former retail customers may become stranded due to the municipality's (the new wholesaler's) utilization of open access transmission, FERC decided to serve as the primary forum for resolution of stranded costs claims relating to new municipalizations. See Order 888-A, p 31,048 at 30,402. FERC also decided to serve as the primary forum "in a discrete set of municipal annexation cases"--i.e., cases involving "existing municipal utilities that annex retail customer service territories and, through the availability of Commission-required transmission access, use the transmission system of the annexed customers' former supplier to access new suppliers to serve the annexed load." Order 888-B, p 61,248 at 62,102. In such cases, FERC will determine on a case-by-case basis whether there exists the requisite nexus between municipal annexation and open access transmission. Recognizing that state regulatory authorities may be the first to address claims for stranded cost recovery in the retail-turned-wholesale scenario (FERC's label for new municipalizations and municipal annexations), FERC stated that it "will take into account state findings on cost determinations ... and will give great weight in [its] proceedings to a state's view of what might be recoverable." Id. at 62,105 (internal quotation marks omitted).

This issue provoked the only dissents to Order 888. Although neither dissenting commissioner disputed FERC's jurisdiction to allow recovery of these stranded costs, both faulted FERC for second-guessing state authorities regarding stranded costs. They thought that FERC should have acted as the forum for adjudicating these stranded cost issues only when state authorities failed to act altogether. See Order 888, p 31,036 at 31,904-07 (Commissioner Hoecker concurring in part and dissenting in part); id. at 31,907 (Commissioner Massey dissenting in part).

Unlike the dissenters, both the States and POSCR challenge FERC's assertion of jurisdiction. According to the

States, FERC usurped their role as protectors of retail customers by potentially undermining their rate treatment of retail costs. POSCR makes three arguments. Advancing claims similar to its arguments about stranded costs resulting from state-ordered retail wheeling (see Section V.B.1.a supra), POSCR first contends, relying again on section 201(b), that FERC lacks jurisdiction to award retail stranded costs in the retail-turned-wholesale scenario. Second, it claims, FERC failed to weigh properly the adverse effects of Order 888 on franchise competition between utilities and municipalities. Finally, relying on the Hoecker and Massey dissents, POSCR argues that FERC acted arbitrarily and capriciously by declaring itself to be the primary forum for retail-turnedwholesale stranded cost claims. For their part, the IOUs fault FERC's failure to consider claims for recovery in the socalled "bypass" scenario. We address these arguments in

The States begin their argument by asserting that "[w]hen retail utility customers leave the utility's system because of municipalization, the costs stranded by the customers' migration normally are not allocable ... to whatever wholesale utility service might be sold to the city for resale." While this may have been true in the past, the States' argument ignores FERC's conclusion that it is open access transmission that makes municipalization feasible. Because FERC has determined that it will consider proposals for stranded cost recovery only when there is a direct nexus between municipalization and open access transmission, we see no basis for the States' claim that FERC will "override Congress's instruction that the states be permitted to protect retail customers."

The answer to POSCR's first argument—that section 201(b) precludes FERC from awarding stranded costs in the retail—turned—wholesale context—appears in our discussion of FERC's jurisdiction to address retail stranded costs resulting from state—ordered retail wheeling. See Section V.B.1.a supra. Because a town becomes a wholesale customer of the historic supplying utility when it municipalizes, FERC's exclusive jurisdiction over all aspects of wholesale sales gives

FERC all the authority it needs to include generation-related costs in rates, including even costs originally incurred to provide retail service. We find no reason to question FERC's decision to allocate stranded costs caused by retail-turned-wholesale customers to the cost of providing wholesale service subject to its jurisdiction. As in the retail wheeling context, these stranded costs are properly viewed as "costs" of the former supplying utility's provision of open access transmission service. With respect to new municipalizations, the retail-turned-wholesale customer is able to reach a new generation supplier only because of open access transmission. And with respect to municipal annexations, FERC will require utilities to demonstrate a nexus between the annexation and open access transmission.

POSCR's second argument relates to what is known as "franchise competition." According to POSCR, franchise competition occurs "when a privately-owned utility is threatened by the prospect that a municipality may exercise powers of eminent domain to take over the utility's operations." POSCR argues that stranded cost recovery could impede franchise competition, which it says FERC has always encouraged. Although this might well be true, the possibility that potential stranded cost liability could deter municipalities from taking advantage of open access does not undermine Order 888. As Order 888-A explains, "the purpose of the stranded cost policy is neither to encourage nor to discourage municipalization, but rather to facilitate a fair transition to competition and to ensure stability in the industry during that transition." Order 888-A, p 31,048 at 30,405.

We turn finally to POSCR's claim that FERC acted arbitrarily and capriciously by declaring itself the primary forum for recovery of retail-turned-wholesale stranded costs. Asserting that FERC's action implicitly undermines state decisionmaking and encourages forum shopping, POSCR claims that Order 888's treatment of the retail-turned-wholesale scenario contravenes agency precedent and conflicts with the agency's decision to leave to the states the consideration of those stranded costs resulting from state-ordered wheeling.

While FERC did leave resolution of claims for wholesaleturned-retail stranded costs to the states in United Illuminating Co., 63 FERC p 61,212 (1993), a pre-Order 888 case addressing a particular utility's application for stranded cost recovery, Order 888-A explains that, after reanalyzing the stranded cost problem, FERC concluded that "where such costs are stranded as a direct result of Commission-mandated wholesale transmission access, these costs should be viewed as costs of the transition to competitive wholesale bulk power markets and this Commission should be the primary forum for addressing their recovery." Order 888-A, p 31,048 at 30,407. In our view, this explanation adequately distinguishes between recovery of stranded costs from retail customers and recovery from retail-turned-wholesale customers. In the former situation customers remain retail customers subject to state jurisdiction; in the latter situation, customers become wholesale customers subject to FERC's exclusive jurisdiction. This very different result justifies FERC's different treatment of the two situations.

The IOUs argue that FERC should have provided for stranded cost recovery from a retail-turned-wholesale customer who ceases to purchase power from a utility but does not use that utility's transmission service to reach another power supplier -- the so-called "bypass" scenario. This argument requires little discussion. In declining to provide a mechanism for the recovery of bypass stranded costs, FERC explained that "Order No. 888 does not by its terms bar the recovery of costs that do not result from the use of Commission-required transmission access. Utilities may, as before, seek recovery of such non-open-access-related costs on a case-by-case basis in individual rate proceedings. The Commission will not prejudge those issues here." Id. at 30,409. Given FERC's discretion to proceed through adjudication rather than by generic rule, see SEC v. Chenery Corp., 332U.S. 194, 201-03 (1947), the IOUs' challenge is without merit.

* * *

As evidenced by the numerous petitions for review, FERC faced an enormously difficult task in fashioning a stranded

cost recovery mechanism that fairly compensates utilities for past investments while transitioning the electricity industry to competition. FERC has done an admirable job. Producing a comprehensive, evenhanded record and carefully considering all commenters' claims, it adopted a stranded cost recovery policy that accomplishes its stated objectives, complies with the FPA, conforms to our case law, and reasonably accommodates all competing interests. No doubt, there were alternative approaches to stranded cost recovery--petitioners have pointed to several. No doubt some aspects of Order 888 could have been better supported. But given the extremely technical nature of these issues, as well as our highly deferential standard of review, we find no basis for questioning FERC's approach. Although Order 888 may be characterized in many ways, it can hardly be said to be either arbitrary or capricious.

VI. Credits for Customer-Owned Facilities and Behind-The-Meter Generation

The Commission's Open Access Tariff requires that public utilities—or "transmission providers"—offer "network integration transmission service." This requirement is one of the key elements in the Commission's attempt to "remove impediments to competition in the wholesale bulk power market—place," Order 888, p 31,036 at 31,634. Network service allows a customer—for instance, a municipal utility—to use a transmission system in a manner comparable to the way the transmission provider utilizes its system to move power from its generators to its native load customers.11 See Order 888,

^{11 &}quot;Load" may be defined as "[t]he total demand for service on a utility system at any given time." Public Utilities Reports Glossary for Utility Management 84 (1992); see also Carl Pechman, Regulating Power: the Economics of Electricity in the Information Age 11 (1993). The Tariff defines "native load customers" as the "wholesale and retail power customers of the Transmission Provider on whose behalf the Transmission Provider, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Provider's

p 31,036 at 31,736; id. at 31,751; Order 888-A, p 31,048 at 30,260 n.247; id. at 30,325.12 With network service, resources located throughout the system serve loads dispersed throughout the system. For this, the transmission provider incorporates the network customer's resources and loads (projected over a minimum ten-year period) into its own long term planning. Because network service ultimately provides the customer with the same full system ability for transmitting power as the transmission owner, the Commission required that costs be allocated on the basis of a ratio of the network customer's load to the transmission provider's entire load on its transmission system. A group of petitioners, led by Florida Municipal Power Agency (FMPA), challenge the Commission's use of this "load-ratio pricing."

The FMPA petitioners do not object to load-ratio pricing as such. In fact they think it "is a good method to allocate the costs of a transmission network among network owners or users," Brief of Credits for Customer-Owned Facilities, etc., at 3-4 ("Credits Brief"). Their principal complaint, repeated many times and in many ways throughout their briefs, stems from their view that as a practical matter the Commission required that the network customer's total load be used in calculating the ratio,13 even though some customers "sell power from local, 'behind the meter' generation and transmission, or ... obtain power from more than one transmission system..." Id. at 8.14 The FMPA petitioners say this

system to meet the reliable electric needs of such customers." Order 888-A, p 31,048 at 30,508.

- 12 Public utilities must also offer point-to-point service, that is, transmission service reserved and/or scheduled between specified points of receipt and delivery. Order 888-A, p 31,048 at 30,508.
- 13 The Commission did not actually require a customer to designate its total load to obtain network service: a customer may exclude all--not merely part--of its load at a discrete delivery point. See Order 888-A, p 31,048 at 30,256-62.
- 14 "Behind the meter generation [and transmission] means generation [or transmission] located on the customer's side of the point of delivery." Order 888-A, p 31,048 at 30,254 n.230.

allows "transmission providers to charge wholesale customers for network transmission that they do not want, need or use to provide electric power service to their customers." Id. at 18.

The Commission provided some relief in response to these complaints, but not enough to satisfy the FMPA petitioners. "Because of the diverse concerns raised by the commenters," the Commission wrote in the preamble to Order No. 888, "we are unable to resolve on the basis of this record the extent to which, or under what circumstances, cost credits related to customer-owned facilities would be appropriate under an open-access transmission tariff." Order 888, p 31,036 at 31,742. Rather, this will be done on a case-by-case basis. The Commission warned, however, that mere interconnection between a customer's facilities and the transmission provid-

er's facilities will not be sufficient to warrant a cost credit. Relying on Florida Municipal Power Agency v. Florida Power & Light Co., 67 F.E.R.C. p 61,167 (1994) (FMPA I), modified, 74 F.E.R.C. p 61,006 (1996) (FMPA II), the Commission required the customer to demonstrate that its "transmission facilities are integrated with the transmission system of the transmission provider" and "provide additional benefits to the transmission grid in terms of capability and reliability, and [are] relied upon for the coordinated operation of the grid." Order 888, p 31,036 at 31,742; Order 888-A, p 31,048 at 30,271. The Commission did, however, guarantee credits for new, integrated transmission facilities built by a customer if jointly planned with the transmission provider.

We detect nothing in the arguments of the FMPA petitioners to warrant setting aside this aspect of the Commission's rule. It is true that as the owners of generation and transmission facilities, any one of these petitioners can satisfy some of its needs. But network service, as the Commission defined it, means that network customers can call upon the transmission provider to supply not just some, but all of their load at any given moment, when for instance they experience blackouts or brownouts. The Commission decided that if a customer does not desire such full network service for its entire load, it may exclude loads at discrete delivery points

and purchase point-to-point service instead. What it cannot do is split loads at delivery points. The FMPA petitioners object to the Commission's refusal to allow a split system, but their objection is not well-taken. They ignore the technical problems with a split system, stemming partly from the manner in which electrons flow and the impossibility of isolating loads from the transmission provider's system. See FPC v. Florida Power & Light, 404 U.S. 453 (1972). Furthermore, "such a split system creates the potential for a customer to 'game the system' thereby evading some or all of its load-ratio cost responsibility for network services." Order 888-A, p 31,048 at 30,259.15 The FMPA petitioners label this prospect a "fiction," but offer neither evidence nor reasoning to counter the Commission's expert judgment.16

As to credits, these petitioners maintain that if the Commission is going to use total "load-ratio pricing with Network Load defined as total customer load, simultaneous credits are required." Credits Brief at 41. What they mean by credits is reduced prices for any and all behind-the-meter facilities they own. The Commission's rejection of this blanket approach is well-supported. Credit may be given, but not automatically. The question can only be determined on a case-by-case basis because it depends on whether the customer's facilities are truly integrated with the transmission system, rather than merely interconnected. Only if they are

¹⁵ Load-ratio cost responsibility is based on the customer's contribution to the transmission system peak each month. With a split system a customer could, at the time of the monthly system peak, increase its behind-the-meter generation in order to decrease its load-ratio cost responsibility, while making significant use of the transmission system throughout the rest of the month. See Order 888-A, p 31,048 at 30,259 & nn.244 & 245.

¹⁶ Petitioners claim that Florida Power Co., 81 F.E. R. C. p 61,247 (1997), decided after Order No. 888, shows that it is not "necessary for customers to purchase amounts of network transmission equal to their entire load behind a delivery point." Credits Brief at 30. It shows no such thing. The case involved not network integration transmission service, but a sort of hybrid service called "network contract demand transmission service."

integrated will the transmission system benefit and only then, the Commission decided, should credits--which shift the costs of the customer's facilities to the transmission provider's customers--be allowed. Order 888-A, p 31,048 at 30,271. Petitioners call the Commission's rule in this regard "an unexplained and inexplicable retreat from FMPA v. FPL." Credits Brief at 42. It is nothing of the sort. The Commission made this abundantly clear. In FMPA I the Commission said that "if [a customer] has transmission facilities that will operate as part of the integrated transmission system, a credit would be reasonable." 67 F.E.R.C. at 61,482 n.76. And in FMPA II the Commission said that mere interconnection does not equal integration and that integration must be determined case by case. 74 F.E.R.C. at 61,010. This is completely consistent with the Commission's resolution of the credits issue in the proceedings before us.

The FMPA petitioners' next objection deals with new customer facilities -- that is, those built after network service begins under the Tariff. The Commission determined that "the Network customer shall receive a credit where such facilities are jointly planned and installed in coordination with the Transmission Provider." Order 888-A, p 31,048 at 30,534. Petitioners begin by reading this as some sort of "limitation," they expand it into a "condition precedent for customers to receive credit for new facilities," and they end by treating it as a bar to "credits for new customer-facilities unless they are jointly planned," Credits Brief at 43, 44, 45. Commission counsel rightly points out that petitioners have completely misread the rule: "simply put, the Rule does not speak to the situation of new facilities built outside a joint planning effort." Commission Brief at 104. The Commission did determine that a joint planning mandate was "beyond the scope of this proceeding," Order 888-A, p 1,048 at 30,311. Using their mistaken premise, petitioners insist that the Commission acted arbitrarily in this regard, giving transmission providers the power to block all customer credits for new facilities. See Credits Brief at 45. Since their premise is mistaken, their conclusion must be rejected. The balance of

the FMPA petitioners' arguments have been considered and rejected.

VII. Liability, Interface Allocation, and Discounting

As part of Order 888, FERC adopted a pro forma Open Access Transmission Tariff (OATT), containing minimum terms and conditions for non-discriminatory service, which every transmission-owning public utility must file with the Commission and by which it must abide in providing transmission services to itself and others. Various petitioners have challenged isolated provisions of the OATT--specifically the provisions governing liability and indemnification, interface allocation, and delivery-point specific discounting. We reject each of these challenges.

A. Liability and Indemnification

Prior to unbundling, retail tariffs were primarily a matter for state regulation, and most states had approved tariff provisions permitting utilities to limit their liability for service interruptions to instances of gross negligence or willful misconduct. Courts upheld these limitations on the public policy grounds that they balanced lower rates for all customers against the burden of limited recovery for some, and that the technological complexity of modern utility systems and resulting potential for service failures unrelated to human errors justified liability limitations. In the past, FERC also has allowed electric utility tariffs to explicitly limit a utility's liability for service interruptions to instances of gross negligence or willful misconduct.

One of the pro forma tariffs included in the Notice of Proposed Rulemaking contained a provision explicitly limiting the liability of transmission providers to circumstances of gross negligence or intentional wrongdoing. See Open Access NOPR, p 32,514 at App. C s 15.0. Section 10.2 of the OATT requires the transmission customer to "at all times indemnify, defend, and save the Transmission Provider harmless from, any and all damages ... except in cases of negligence or intentional wrongdoing by the Transmission Provider." Order 888, p 31,036 at 31,936-37 (emphasis added). In Order

888, FERC justified the change with a single statement: "We find that this new indemnification provision would be too strict if it required customers to indemnify transmission providers even in cases where the transmission provider is negligent." Order 888, p 31,036 at 31,765.

The investor owned utility petitioners (IOUs) challenge the OATT's indemnification provision on the ground that FERC adopted the lesser ordinary negligence standard in Order 888 without first notifying interested parties that it was contemplating such a major policy change. The IOUs claim that the change in the provision's language represents a significant shift in indemnification policy, in that it leaves transmission providers open to claims of ordinary negligence for the first time. The courts consistently have relied upon explicit tariff provisions to enforce the gross negligence standard for liability, see, e.g., Southwestern Bell Tel. Co. v. Rucker, 537 S.W.2d 326, 330-32, 334 (Tex. App. 1976); and if the tariffs do not explicitly limit liability for ordinary negligence, the IOUs claim, the courts will assess such matters differently. Because FERC's notice was not clear that the liability standard was a subject or issue of the rulemaking, the IOUs claim that FERC denied their right to comment on the change. See, e.g., AFL-CIO v. Donovan, 757 F.2d 330 (D.C. Cir. 1985); McLouth Steel Prods. Corp. v. Thomas, 838 F.2d 1317 (D.C. Cir. 1988). Citing principally our opinion in Air Transport Association of America v. DOT, 900 F.2d 369, 379 (D.C. Cir. 1990), the IOUs contend that the fact that they were able to raise their concerns in their petition for rehearing is not a substitute for pre-issuance notice and comment.17

FERC responds by denying that the indemnification provision adopts a particular liability standard at all. FERC claims that it has merely distinguished liability from indemnification, and that the change to the pro forma tariff does not establish a new, simple negligence standard of liability for transmission providers. Citing its own statements in Order

¹⁷ We recognize that Air Transport has been vacated. See Air Transport Association of America v. DOT, 933 F.2d 1043 (1991) (per curiam).

888-A, FERC asserts that the tariff's indemnification provision should not be construed as preempting state liability standards. See Order 888-B, p 61,248 at 62,080-81. FERC maintains that, since the change to the indemnification provision does not represent a substantive alteration in policy or the standards governing legal liability, the Commission was not obligated to notify interested parties and seek comment. FERC accuses the petitioners of wanting FERC to impose a federal gross negligence liability standard, which FERC contends that it properly declined to do pursuant to United Gas Pipe Line Co. v. FERC, 824 F.2d 417 (5th Cir. 1987) (rejecting the need for a federal liability standard for pipelines).

The IOUs charged that FERC has deleted a limitation of liability to gross negligence from the existing background of utilities liability law and has done so without substantial evidence and without exercising reasoned decision making. See Mid-Tex Elec. Coop., Inc. v. FERC, 773 F.2d 327, 338 (D.C. Cir. 1985) (the Commission's decision must be supported by substantial evidence and be the result of reasoned decision making). The Commission denies that it has established a standard of liability nearly so sweeping as the IOUs fear. We agree with FERC's reading of the rule. While the petitioners argue that the rule works a "dramatic change" regarding the liability of electric utilities by imposing an ordinary negligence rather than a gross negligence standard that previously prevailed, in fact, the rule does not establish a new simple negligence standard of liability for transmission providers. While we read FERC's interpretation of its own rule deferentially, see Jersey Shore Broad. Corp. v. FERC, 37 F.3d 1531, 1536 (D.C. Cir. 1994), by any standard, its construction is correct in the present controversy. In the preamble to the regulations before us, FERC plainly describes the disputed provision as an "indemnification" provision, and recites reasoning supporting the particular indemnification provision it adopted. "[T]his new indemnification provision would be too strict if it required customers to indemnify transmission providers even in cases where the transmission provider is negligent." Order 888, p 31,036 at 31,765. In the preamble to Order 888-A, in a section con-

cededly headed "Liability and Indemnification" (emphasis added), FERC explains the later version of the relevant provisions in terms consistent with the Order 888 preamble. See generally Order 888-A, p 31,048 at 30,299-302. Finally, in Order 888-B, FERC summarizes its reasoning for its indemnification and liability decisions, again both adequately and in ways not amounting to the adoption of the universal standard as asserted by the IOUs. See generally Order 888-B, p 61,248 at 62,079-81. In short, FERC's rule does not work so sweeping a change in the legal landscape as the IOUs assert, and FERC has exercised reasoned decisionmaking in support of such pronouncements as it has made.

Insofar as the IOUs challenge the adequacy of FERC's notice in the NOPR that it was contemplating a change in the indemnification and liability provisions of pro forma tariffs, that challenge also fails. It is well established that a final rule need not be identical to the original proposed rule. e.g., AFL-CIO v. Donovan, 757 F.2d at 338; Trans-Pacific Freight Conference v. Federal Maritime Comm'n, 650 F.2d 1235, 1249 (D.C. Cir. 1980). Were the change between the proposed and final rule an important one, we would have to ask whether the final rule is a logical outgrowth of the proposed one. See, e.g., National Mining Ass'n v. Mine Safety & Health Admin., 116 F.3d 520, 531 (D.C. Cir. 1997). Not all changes are sufficiently important to warrant such scrutiny and concern, however. "An agency, after all, must be free to adopt a final rule not described exactly in the [notice of proposed rulemaking] where the difference is sufficiently minor, or agencies could not change a rule in response to valid comments without beginning the rulemaking anew." National Cable Television Ass'n v. FCC, 747 F.2d 1503, 1507 (D.C. Cir. 1984).

We agree with FERC that its indemnification provision does not preclude the states from shielding utilities from liability for ordinary negligence. States did so before, through both their regulatory commissions and their courts; and they remain free to do so under Order 888. The deletion of the gross negligence language from the pro forma tariff's indemnification provision does not significantly change the

petitioners' legal position. Therefore, contrary to the IOUs' challenge, the deviation of the final rule from the proposed one is not a major one; and FERC's failure to notify interested parties that it was considering the change does not render the provision arbitrary or capricious under the APA. Accordingly, we affirm this portion of the pro forma tariff.

B. Interface Allocation

The IOUs also challenge FERC's treatment of interface allocation as unsupported by the record and contrary to reasoned decision making. Section 30.8 of the pro forma tariff addresses how much of a transmission provider's interface capacity a network customer can use. See Order 888, p 31,036 at 31,954-55. Interface capacity represents the capability of a transmission facility to transfer power between two utilities. Section 30.8 permits a network customer to use a transmission provider's capacity to the extent of the network customer's total load without limitation.

In the rulemaking process, several parties argued that a fair method of interface allocation would be the use of a load ratio, under which the transmission provider and each network customer would be allocated a share of each specific interface based upon their respective loads. Nevertheless, in Order 888, FERC ruled that network customers could use

any of the transmission providers' interfaces to import up to their full load on a first-come, first-served basis. The IOUs maintain that this ruling does not promote an equitable allocation of a transmission provider's interfaces.

The IOUs also note that, responding to the IOUs petition for rehearing on this issue in Order 888-A, FERC merely referenced Florida Municipal Power Agency v. Florida Power & Light Co., 74 F.E.R.C. p 61,006 (1996) (hereinafter FMPA II), to support its conclusion, without addressing either the comments or the rehearing petitions. FERC meanwhile maintains it found the load ratio share method advocated by some transmission owners to be unreasonable for the same reasons discussed at length in FMPA II. Intervenors add that the IOUs' challenge of the aggregate,

first-come, first-served approach adopted by FERC as inequitable merely reflects a disagreement with FERC's policy choice.

Whether to adopt a load ratio share approach or an aggregate, first-come, first-served approach to capacity allocation is a matter of policy. Again, the IOUs have not challenged FERC's legal authority to select a particular interface allocation method, but rather whether FERC's choice was based upon reasoned decision making. Accordingly, we evaluate FERC's treatment of interface capacity allocation under the APA's arbitrary and capricious standard. See 5 U.S.C. s 706(2)(A) (1994).

FERC's analysis of the issue in the present rulemaking consists solely of a reference to and quotation from its earlier decision in FMPA II. See Order 888-A, p 31,048 at 30,304-05. That proceeding involved an application by Florida Municipal Power Agency for open access to Florida Power & Light Company's transmission facilities pursuant to FPA ss 211 and 212. See FMPA II, 74 F.E.R.C. p 61,006 at 61,004; see also Florida Mun. Power Agency v. Florida Power & Light Co., 67 F.E.R.C. p 61,167 (1994) (hereinafter FMPA I). In FMPA I and FMPA II, FERC justified its choice of policies as follows:

[T]here are no restrictions on the use of other parts of the transmission system. If the interfaces are constrained, Florida Power and FMPA should simply redispatch and share the redispatch costs and, ultimately, Florida Power will build new facilities when needed. The interfaces are just another part of the transmission grid, and Florida Power must plan and operate the grid, including the interfaces, to meet the combined needs of Florida Power and FMPA on an equal basis. When there are conflicting needs to use the same interface capacity, the parties have already agreed that the combined Florida Power and FMPA systems will be redispatched and the costs shared. When the grid, including interfaces, needs to be expanded, Florida Power will undertake the expansion on behalf of the combined system

FMPA II, 74 F.E.R.C. p 61,006 at 61,018 (quoting FMPA I, 67 F.E.R.C. p 61,167 at 61,484). While FERC's recognition of the petitioners' concerns was certainly cursory, and its language in FMPA II is slightly oblique, FERC has adequately demonstrated that it gave full consideration before rejecting load ratio share in favor of aggregate, first-come, first-served capacity allocation. Accordingly, we uphold FERC's ruling on the interface capacity allocation issue.

C. Delivery-Point-Specific Discounting

Two groups of transmission dependent utilities, TAPS and TDU Systems, and the nation's largest power wholesaler, Enron Power Marketing (collectively the U&D petitioners), challenge FERC's decision to permit delivery-point-specific discounting. Electric utilities often offer both firm and non-firm service. Firm service permits customers to demand transmission at any time, while non-firm service permits the utility to cut service when there is not enough excess capacity.

In Order 888, FERC allowed transmission providers to offer discounted rates for non-firm service only if they gave the same discounted rate to all customers for the same transmission path and on all other unconstrained transmission paths. See Order 888, p 31,036 at 31,743-44. FERC also required that the discounts be posted in advance so that all customers could have equal opportunity to take advantage of the discounted rate. See id. at 31,744. In Order 888-A, FERC narrowed the requirement, so that a transmission provider offering a discount on a particular path need only provide the same discount to all other unconstrained paths that go to the same delivery point on the provider's system. See Order 888-A, p 31,048 at 30,275-76. FERC also said that a transmission provider should discount only if necessary to increase throughput on its system. See id. at 30,274.

The U&D petitioners contend that delivery-point-specific discounting results in higher transmission rates for transmission dependent utilities (TDUs), who rely on point-to-point service rather than network service for their transmis-

sions. Delivery-point-specific discounting permits transmission facility owners to select the delivery points for which they will discount firm and non-firm service. The U&D petitioners argue that this discounting method allows transmission facility owners to discriminate by denying discounts to the delivery points used by the TDUs, thereby raising the transmission costs of these competitors, and in turn decreasing competition at both retail and wholesale.

Additionally, because of the subordination and interruptibility of non-firm service, the U&D petitioners claim that FERC's longstanding pricing policies utilized discounting as the mechanism for ensuring that non-firm service was priced below firm service. The notice of proposed rulemaking emphasized FERC's reliance on non-discriminatory discounting to achieve higher firm service rates than non-firm rates, so that non-firm rates would reflect the interruptibility of transmission services and be economically efficient. The petitioners argue that FERC's decision in Order 888 to deny discounting of non-firm rates unless firm rates are also discounted an unexplained reversal of that longstanding pricing policy. By adopting a delivery-point-specific discounting rule, the petitioners claim that FERC subjects TDUs to firm rates for all non-firm service. As a result, the petitioners contend, the price that TDUs have to pay for non-firm service does not reflect the interruptibility of that service. The petitioners maintain that this aspect of FERC's order itself represents undue discrimination, and that FERC failed to explain why it rejected a compromise position which would restrict opportunities for discrimination and address concerns that the new rules discourage discounting.

FERC notes that it discussed the discounting issue in Orders No. 888, 888-A, and 888-B. See Order 888, p 31,036 at 31,743-44; Order 888-A, p 31,048 at 30,272-76; Order 888-B, p 61,248 at 62,072-75. FERC accuses the petitioners of wanting the Commission to require transmission providers to discount all non-firm services below firm rates regardless of the facts of the particular case. FERC asserts that it did not seek to discourage discounting, but was concerned that if it required discounting on all unconstrained paths as a condition

for offering discounts, transmission providers would be discouraged from offering any discounts at all. Fewer discounts could lead to decreased use of transmission services, and therefore a decline in overall transmission revenues, and a corresponding increase in transmission rates to enable transmission providers to recover their costs. FERC maintains that the petitioners, like everyone else, retain the opportunity to compete with the transmission provider for power sales to the same delivery point at the same discounted rate. FERC argues that its orders are consistent with its established pricing policy of permitting flexibility to reflect interruptibility and efficient use of the transmission system, subject to the firm price cap. In most cases, FERC expects that non-firm transmission rates will be priced below the firm rate.

Although the petitioners hint at a statutory claim by alleging that FERC's orders result in undue discrimination and higher rates in violation of the FPA's statutory mandate, the petitioners generally confine themselves to arguing that FERC's decisions to permit delivery-point-specific discounting and non-firm rates equal to firm rates represent unexplained departures from established policy. We therefore analyze this issue under the arbitrary and capricious standard of the APA. See 5 U.S.C. s 706(2)(A).

With respect to non-firm versus firm rates, the cases cited by the petitioners as demonstrating a previously established discounting policy actually establish that FERC addresses this issue on a case-by-case basis. For example, in Kentucky Utilities Co., 15 F.E.R.C. p 61,002 (1981), FERC said that the utility could not allocate capacity costs to non-firm transmission service since such service did not factor into the utility's capacity decisions. In contrast, in Central Maine Power Co., 60 F.E.R.C. p 61,285 (1992), while FERC noted that non-firm service generally warrants a rate lower than firm service, FERC also upheld the utility's decision not to offer non-firm rate discounts on several contracts. Indeed, the petitioners acknowledge that FERC's pre-Order 888 Transmission Pricing Policy Statement, 59 Fed. Reg. 55,031 (1994), does not

expressly require non-firm rates to be priced below firm rates in all cases. See Br. of U&D Petitioners at 24 n.30.

The petitioners cite American Electric Power Service Corp., 82 F.E.R.C. p 61,090 (1998), for the proposition that, after adopting delivery-point-specific discounting, FERC has refused to consider whether non-firm rates should be lower than firm rates; but in that case, FERC did consider that issue, found the rates in question to be nondiscriminatory, and refused only to consider the petitioners' generic challenges to its broader policy of flexibility. Additionally, the petitioners charge that FERC's acceptance of firm rates for non-firm service conflicts with this court's decision in Fort Pierce Utilities Authority v. FERC, 730 F.2d 778, 788-89 (D.C. Cir. 1984); but in that case, this court merely noted that FERC had failed to reconcile its decision to allocate capacity costs to non-firm transmission service with its previous refusal to do so in Kentucky Utilities, and remanded for further consideration. In short, FERC does not appear to have changed its overall pricing policy at all, except to fine tune its guidance as to when discounting might be considered discriminatory.

Which brings us to whether delivery-point-specific discounting in fact discriminates against the TDUs. Essentially, FERC and the petitioners offer conflicting discounting theories, both of which seem plausible. In its request for rehearing, TAPS observed that, by allowing transmission providers to select which delivery points merit discounts, FERC permits the providers to select for discounting those delivery points which serve their affiliates, and not to select the similarly situated delivery points which serve the TDUs. On rehearing, FERC quite logically maintained that requiring transmission providers to apply discounts to all unconstrained transmission paths could discourage discounting generally, resulting in higher rates for all. See Order 888-A, p 31,048 at 30,275. FERC subsequently asserted that requiring transmission providers to offer the same discount for the same time period on all unconstrained paths that go to the same

delivery point will achieve sufficient comparability. See Order 888-B, p 61,248 at 62,075. FERC noted that it will be able to monitor the discounting behavior of transmission providers for discrimination through the data posted on OASIS. See id.

The record reflects that FERC considered fully all of the arguments, and concluded that delivery-point-specific discounting best accomplished comparability while encouraging discounting. Thus, the discounting policies outlined in Orders 888, 888-A, and 888-B are not arbitrary or capricious. We therefore affirm FERC's resolution of this issue.

VIII. Tariff Terms and Conditions

A. Headroom Allocation

Firm point-to-point service, as distinguished from network service, is transmission service reserved and/or scheduled between specified points of receipt and delivery. See Order 888-A, p 31,048 at 30,508. Point-to-point customers may not need all the service for which they contracted. The Commission decided that they may, without extra charge, use their excess capacity to make firm sales between the receipt and delivery points specified in their agreement. Section 22.1 of the Tariff gives them another option for dealing with this "headroom." The point-to-point customer may, without charge, have the public utility provide transmission on a non-firm basis over receipt and delivery points other than those specified in the service agreement (so-called "secondary" points).

Network customers describing themselves as Transmission Dependent Utilities (TDUs) contend that the flexibility given to point-to-point customers to sell their unused capacity should also be given to them. Three transmission providers18 --the CPL petitioners--want restrictions placed on point-to-

¹⁸ Carolina Power & Light Company (CPL), Florida Power & Light Company and Niagara Mohawk Power Corporation.

point customers in order to avoid putting the customers at a competitive advantage. The Commission refused to adopt these proposals for reasons we believe are sound.

As to transmission providers, the Commission noted that if they want to make off-system sales they too must take pointto-point service; in doing so they gain the same flexibility as regular point-to-point customers. See Order 888, p 31,036 at 31,751. For network customers, the Commission stated that they "are not obligated to take network transmission service" and if they "want to take advantage of the as-available, nonfirm service over secondary points of receipt and delivery through the point-to-point service, they may elect to take firm point-to-point transmission service in lieu of the network Order 888-A, p 31,048 at 30,253. The Commission properly insisted on maintaining its basic distinctions between network service and point-to-point service. Unlike a point-topoint customer, a network customer's rights are defined in terms of capacity needed, and thus "vary as the customer's load varies, " rendering them not sufficiently definite and defined to be "reassignable in the secondary market." Id. at 30,223. At least one of the TDUs agreed with the Commission "that, because there is no fixed capacity reservation for network customers, allowing them unrestricted use of capacity to make off-system sales without additional charge would give such customers a competitive advantage over [point-topoint] customers." Terms and Conditions Brief at 11.19

B. Headroom Prioritization

Some petitioners complain that secondary non-firm point-to-point customers should not have been placed in a status below non-firm point-to-point customers and that the Com-

¹⁹ These petitioners add that the Vermont Department of Public Service (VDPS) offered a solution to the problem but the Commission overlooked it. Terms and Conditions Brief at 12. This is not correct. The Commission did consider the Vermont proposal, finding it to be an "artifice derived from the load ratio share calculation," a "formula [that] does not result in a reassignable capacity right." Order 888-A, p 31,048 at 30,223.

mission offered no explanation for its doing so. See Terms and Conditions Brief at 14-17. The Commission did explain itself. Firm point-to-point customers are permitted to designate secondary receipt and delivery points at no extra charge and therefore "are properly accorded a lower priority than stand alone, non-firm transmission." Order 888-A, p 31,048 at 30,281. Furthermore, the Commission promised to reevaluate its approach in response to any "future transmission rate proposal that is based on the concept of tradable capacity rights," but it was moving cautiously because in the electric utility industry (unlike the natural gas industry) such "trading rights simply do not exist at this time." Id.

C. Duplicative Charges

The TDU petitioners argue that the new rules cause them to be double-charged in certain transactions. They first object to the Commission's decision that in power exchanges (flows in one direction for a time and then flows in the opposite direction) each party must reserve and pay for transmission along the same path. See Terms and Conditions Brief at 18. The Commission's response was that traditionally and "from the transmitting utility's planning and reservation perspective," the power exchange consists of two one-way transmission services. Commission Brief at 115. Petitioners offer no legal basis for us to prefer their treatment to that of the agency and so we will not disturb the Commission's approach.

Petitioners' second objection is that the Tariff double counts network load served by two separate energy suppliers because, "[i]f two separate suppliers purchase network service to supply a portion of the load for a particular customer, the entire load of the customer is included in calculating the reservation charges paid by both supplying network customers, unless each load portion is isolated electrically from the other." Terms and Conditions Brief at 21. We confess to some difficulty in comprehending petitioners' complaint. It seems perfectly reasonable to answer, as the Commission's counsel does, that "there is no rational basis for both the network transmission customer and its power marketer sup-

plier to designate the same load under the Tariff." Commission Brief at 115. The power supplier itself may, the Commission pointed out, purchase network service; we cannot see why both the power supplier and the power buyer would purchase such service when a purchase by either would suffice. Petitioners seem to concede that in some instances the double-counting problem could be avoided in this manner, yet they think that in some other, ill-defined circumstance it could not. This rulemaking set forth the standard tariff terms. If petitioners, or any one of them, have some unique circumstances warranting an adjustment, there will be time enough for them to seek relief from the Commission.

Multiple Control Areas

Network customers may wish to serve loads in two or more control areas. Some commenters were concerned that such customers would have to pay a network transmission rate to two or more transmission providers based on the customer's total load. See supra Section VI (credits for customers). The Commission had several responses. First, the risk could be avoided or alleviated by the customer's purchasing pointto-point service, or a combination of network and point-topoint service at discrete delivery points (thereby reducing its load ratio). Or the customer could purchase network service alone in each transmission provider's control area. See Order 888-B, p 61,248 at 62,096 n.157. If the customer insists on foregoing the last option, it can hardly expect that the additional service it is demanding -- the moving of power from one transmission provider's system to another system-should be free of charge. As the Commission put it:

Because the additional transmission service to nondesignated network load outside of the transmission provider's control area is a service for which the transmission provider must separately plan and operate its system beyond what is required to provide service to the customer's designated network load [within the control area], it is appropriate to have an additional charge associated with the additional [point-to-point] service.

Order 888-A, p 31,048 at 30,255, quoted in Order 888-B, 81 F.E.R.C. p 61,248 at 62,096. This is consistent with the handling of an analogous situation involving separate transmission systems in the past. See Fort Pierce Utils. Auth. v. FERC, 730 F.2d 778, 781-85 (D.C. Cir. 1984).20

Ε. Right-of-First-Refusal

In order to preserve the certainty and continuity of transmission service, the Commission granted existing customers a right-of-first-refusal (ROFR) upon the expiration of firm contracts exceeding one year provided that the existing customer agreed to match the contract price and term of any party competing for that service. See Order 888, p 31,036 at 31,665. The Commission did not set an upper limit on the terms that a competing party could offer, but chose instead to allow the market to determine rates and terms. Petitioners argue that the Commission's failure to establish an upper limit should be set aside and remanded for further consideration. The Commission conceded error on this point at oral argument in light of United Gas Distribution Cos. v FERC, 88 F.3d 1105, 1138-40 (D.C. Cir. 1996). We therefore remand this matter to the Commission so that it may provide a reasonable cap on contract extensions.21

²⁰ Petitioners claim that the Commission failed to consider a particular proposal related to this subject. See Terms and Conditions Brief at 33. It is unnecessary to describe the proposal. All that need be said is that the Commission rejected a nearly identical proposal and gave its reasons for doing so. See Order 888-B, p 61,248 at 62,096.

²¹ The TDU petitioners stated in their reply brief that Commission counsel's explanation of s 13.2 of the Tariff, as amended in Order No. 888-A and as interpreted in Madison Gas & Electric Co., 82 F.E.R.C. p 61,099 at 61,372 (1998), to apply only to short term customers satisfies their objection. See Terms and Conditions Reply Brief at 25. The remaining arguments of these petitioners not discussed in this part or in part V have been considered and rejected.

IX. National Environmental Policy Act and Regulatory Flexibility Act Compliance

A. NEPA Compliance

One investor-owned utility, Public Service Electric & Gas Company ("PSE&G"), claims that FERC failed to comply with the National Environmental Policy Act ("NEPA"), 42 U.S.C. ss 4321 et seq. It argues first that the base case FERC adopted to evaluate the effects of open access transmission was unreasonable because it "defined away" the effects of open access. Second, it argues, FERC acted arbitrarily and capriciously by failing to undertake measures to mitigate the environmental impact of Order 888.

1. Adequacy of Base Case

NEPA requires federal agencies contemplating a major action "significantly affecting the quality of the human environment" to prepare a thorough analysis of the action's environmental impact. 42 U.S.C. s 4332(C). The statute requires that environmental impact studies include "a detailed statement ... [of] alternatives to the proposed action." Id. s 4332(C)(iii).

In its environmental impact study prepared in connection with Order 888, FERC identified as the base case alternative a scenario that "maintain[s] the status quo." FERC Final Environmental Impact Statement, Promoting Wholesale Competition through Open Access Non-discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities at 2-1 (Apr. 1996) ("FEIS"). Under that scenario, FERC would continue on a case-by-case basis to (1) condition approval of mergers and applications for sales at market rates on the filing of open access tariffs and (2) approve open access wheeling orders under section 211 of the FPA. Id.

Several commenters (including EPA) argued that FERC should adopt as its base case an alternative that freezes the status quo, i.e., assumes that no further open access transmission of any kind occurs and that efficiency in the industry remains unchanged. See id. at 6-1. Characterizing this

"frozen efficiency" case as unreasonable, FERC declined to adopt it as the base case. See id. at 6-9-6-14. It nevertheless conducted sensitivity analyses comparing emissions under the frozen efficiency case with those under its base case. This comparison revealed "modest" reductions in emissions under the frozen efficiency case in certain circumstances. Id. at 6-4. When market conditions favor coal versus natural gas, NOx emissions under the base case are higher than under the frozen efficiency case by two percent in 2000, three percent in 2005, and five percent in 2010. Id. at 6-15. But when market conditions favor gas, the base case produces more favorable environmental benefits for all three years. Id. at 6-17.

We evaluate agency compliance with NEPA under a rule of reason standard. "[A]s long as the agency's decision is 'fully informed' and 'well-considered,' it is entitled to judicial deference and a reviewing court should not substitute its own policy judgment." Natural Resources Defense Council, Inc. v. Hodel, 865 F.2d 288, 294 (D.C. Cir. 1988) (quoting North Slope Borough v. Andrus, 642 F.2d 589, 599 (D.C. Cir. 1980)).

PSE&G argues that FERC, in adopting its base case, "defined away" the impact of open access by comparing the environmental effects that would result from immediate implementation through Order 888 to those that would result from gradual implementation. Calling FERC's evaluation of the frozen efficiency case "cursory," PSE&G contends that the proper no action base case is not to implement open access at all.

Given the terms of NEPA and our highly deferential review, we think FERC's FEIS complied with the statute. For one thing, NEPA does not require that a certain alternative be adopted as the base case. Rather, NEPA requires that agencies include in their FEIS analysis of "alternatives to the proposed action." 42 U.S.C. s 4332(C)(iii). Thus there is no merit to the contention that NEPA requires FERC to adopt the frozen efficiency case as the base case. We agree with PSE&G that one of the alternatives NEPA requires FERC to consider is the alternative of no action.

But based on our own examination of the FEIS, we think that FERC devoted sufficient attention to evaluating the frozen efficiency case (what PSE&G calls the no action alternative) to satisfy NEPA's requirements. In conducting sensitivity analyses to its base case, FERC identified the changes in both NOx and CO2 emissions that the frozen efficiency case would produce. Given that FERC's comparison of the frozen efficiency case to its base case yielded little difference, the agency had no reason to conduct further analysis. By rigorously examining the frozen efficiency case, even though it believed the case to be unreasonable, FERC ensured that its decision was "fully informed" and "well-considered." Hodel, 865 F.2d at 294.

2. Failure to Adopt Mitigation Measures

PSE&G argues that FERC acted arbitrarily and capriciously by failing to adopt measures to mitigate the expected harmful environmental effects of Order 888. Noting that an agency must consider mitigation if the proposed action would result in adverse environmental impacts, FERC considered but ultimately rejected any mitigation measures. See FEIS s 7. In reaching this conclusion, FERC relied on (1) the fact that any mitigation measures it might undertake are unwarranted in view of Order 888's small impact (especially given that its effects are as likely to be beneficial as harmful) and (2) its lack of expertise in atmospheric chemistry, together with the fact that any impact of open access would be "dwarfed by the far larger existing ozone and NOx emission issues" currently being dealt with by EPA under its Clean Air Act authority. FEIS at 7-47-7-48.

The heart of PSE&G's challenge is this: downwind utilities, which are subject to NOx reduction requirements, will face increased compliance costs due to the purported increase in emission levels resulting from Order 888; by comparison, upwind utilities that generate the pollution but are not subject to NOx reduction requirements will experience no increased costs. PSE&G insists that FERC remedy this "undue preference" for upwind utilities.

Given that FERC has identified only small increases in emissions resulting from open access transmission--indeed, under some circumstances, the Commission predicted small decreases -- we think it was entirely reasonable for FERC to decline to adopt mitigation measures to address a problem that it believed might not even develop. Not relying solely on Order 888's relatively insignificant environmental impact, however, FERC comprehensively analyzed proposed mitigation measures, explaining why it declined to require any. light of this thorough analysis, we think FERC's conclusion-that NOx emission increases resulting from Order 888, if any, are best addressed by EPA and the states through a comprehensive emissions control program--is hardly arbitrary or capricious. We therefore have no need to resolve the parties' debate about FERC's legal authority to order environmental mitigation.

PSE&G also argues that FERC employed unreasonable assumptions in the FEIS and ignored its own data showing adverse environmental impacts. In our view, these arguments amount to an effort by PSE&G to substitute its own analysis for FERC's. To prevail in this court, it must demonstrate that FERC's analysis is arbitrary and capricious, a showing it has fallen far short of making.

B. Regulatory Flexibility Act Compliance

The Regulatory Flexibility Act requires agencies to conduct a regulatory flexibility analysis for any final rule. The Act exempts agencies from this requirement if they certify that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." 5 U.S.C. s 605(a)-(b). Invoking this exemption, FERC certified that both Order 888 (open access) and Order 889 (OASIS and standard of conduct rules) would have no such impact. Order 888, p 31,036 at 31,896; Order 889, p 31,035 at 31,628.

The TDU petitioners claim that FERC failed adequately to consider the impact of Orders 888 and 889 on nonjurisdictional entities that may have to provide open access transmission and file open access tariffs under the orders' reciprocity provisions. In contrast to jurisdictional utilities, several non-

jurisdictional utilities are classified as small entities. According to TDU petitioners, the orders impose a significant economic burden on them, requiring compliance activities as well as alterations to their operations.

Although the RFA's judicial review provision was amended in 1996, see Small Business Regulatory Enforcement Fairness Act, Pub. L. No. 104-121, tit. II, 110 Stat. 857 (1996), the TDU petitioners and FERC agree that the pre-amendment version of the RFA applies in this case. Under that version, our review is quite narrow. Section 611(b) provided that "[a]ny regulatory flexibility analysis ... and the compliance or noncompliance of the agency with the provisions of this chapter shall not be subject to judicial review. When an action for judicial review of a rule is instituted, any regulatory flexibility analysis for such rule shall constitute part of the whole record of agency action in connection with the review." 5 U.S.C. s 611(b) (1994). We have interpreted this language to mean that " 'a reviewing court should consider the regulatory flexibility analysis as part of its overall judgment whether a rule is reasonable and may, in an appropriate case, strike down a rule because of a defect in the flexibility analysis.' We emphasize[], however, that 'a major error in the regulatory flexibility analysis may be, but does not have to be, grounds for overturning a rule.' " Mid-Tex Elec. Co-op, Inc. v. FERC, 773 F.2d 327, 340-41 (D.C. Cir. 1985) (quoting Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 537-39 (D.C. Cir. 1983)).

In this case, FERC explained that Orders 888 and 889, considered in their entirety, do not have a "significant" impact on a "substantial" number of small entities. According to FERC, the orders will affect nonjurisdictional utilities only in the limited situation where they take advantage of a jurisdictional utility's open access transmission tariff. Given our highly deferential standard of review, and given the fact that petitioners have offered nothing other than their own views to the contrary, we have no basis for questioning FERC's judgment.

FERC, moreover, was not insensitive to the potential impact of Order 888 on small nonjurisdictional entities. Order 888 contains a waiver provision allowing these entities to seek an exemption from compliance with the reciprocity conditions. See 18 C.F.R. s 35.28(e)(2) (allowing nonjurisdictional utilities to file a request for waiver "for good cause shown"). As of March 1997, FERC had granted waivers to thirty-six small entities. See Order 888-A, p 31,049 at 30,578.

Most important in view of our standard of review, nothing in petitioners' arguments causes us to question the reasonableness of the reciprocity provisions themselves. See Mid-Tex, 773 F.2d at 340-41. We therefore affirm FERC's RFA certification.

Conclusion

In summary, we affirm Orders 888 and 889 in all respects except as specifically provided above.